2013-1660

In The

United States Court Of Appeals

For The Federal Circuit

IN RE RUSSELL G. ROSS and
REBECCA B. KANE

**Appeal from the United States Patent and Trademark Office,
Patent Trial and Appeal Board in Serial No. 10/975,277.**

_____

CORRECTED JOINT APPENDIX

_____

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PTOL-90A (Rev. 04/07)

1   UNITED STATES PATENT AND TRADEMARK OFFICE
2   _____
3
4   BEFORE THE PATENT TRIAL AND APPEAL BOARD
5   _____
6
7   *Ex parte* RUSSELL G. ROSS
8   and
9   REBECCA B. KANE
10   _____
11
12   Appeal 2012-010402
13   Application 10/975,277
14   Technology Center 3600
15   _____
16
17
18   Before HUBERT C. LORIN, ANTON W. FETTING, and
19   JOSEPH A. FISCHETTI, *Administrative Patent Judges.*
20   FETTING, *Administrative Patent Judge.*

21   DECISION ON APPEAL

Appeal 2012-010402
Application 10/975,277

| 1 | STATEMENT OF THE CASE[1] |

2   Russell G. Ross and Rebecca B. Kane (Appellants) seek review under

3   35 U.S.C. § 134 of a final rejection of claims 1-4, 7-12, 14-16, 20-25, 29-32,

4   and 34-36, the only claims pending in the application on appeal. We have

5   jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

6   The Appellants invented a way of providing discounts to customers on

7   the purchase of gasoline, in which customers earn discounts when

8   performing certain actions, such as making purchases, wherein the discounts

9   are associated with customer identification information and may be

10   redeemed by the customers when purchasing gasoline using the customer

11   identification information (Specification 1:Field of the Invention). This is

12   the second time this application is before the Board. The rejections are over

13   substantially the same art and descriptions in the art.

14   An understanding of the invention can be derived from a reading of

15   exemplary claim 1, which is reproduced below [bracketed matter and some

16   paragraphing added].

17   1. A method of

18   providing a customer

19   with an ability to purchase gasoline at a discount,

20   said customer having customer identification
21   information,

22   the method comprising:

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[1] Our decision will make reference to the Appellants' Appeal Brief ("App. Br.," filed April 17, 2012) and Reply Brief ("Reply Br.," filed July 6, 2012), and the Examiner's Answer ("Ans.," mailed May 9, 2012).

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1	[1] determining
2	in a retailer computer system
3	accumulated discount information each time:
4	(i) said customer performs at least one
5	of one or more predefined actions,
6	(ii) said customer identification information is
7	received
8	in association with said at least one of one or
9	more predefined actions,
10	and
11	(iii) first information relating to said at least one of
12	one or more predefined actions is received,
13	said accumulated discount information being
14	based on said first information;
15	[2] storing in a database
16	said accumulated discount information
17	in association with said customer identification
18	information;
19	[3] obtaining said customer identification information
20	when said customer initiates the purchase of gasoline
21	at a gasoline pump;
22	[4] accessing said stored accumulated discount information
23	from said database
24	using said customer identification information;
25	[5] determining an available discount level
26	based on said accumulated discount information that is
27	accessed;
28	[6] presenting said available discount level
29	to said customer;

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1   [7] receiving

2   from said customer

3   in response to said presenting step

4   either

5   an election not to take a discount

6   or

7   an election to take a discount

8   equal to an elected discount level;

9   [8] providing no discount

10   to said customer

11   on said purchase of gasoline

12   if said election not to take a discount is received;

13   and

14   [9] providing said customer

15   with a discount

16   equal to said elected discount level on said
17   purchase of gasoline

18   if said election to take a discount equal to said
19   elected discount level is received.

20   The Examiner relies upon the following prior art:

Ikeda	US 5,937,391	Aug. 10, 1999
McCall	US 6,321,984 B1	Nov. 27, 2001
Nicholson	US 6,332,128 B1	Dec. 18, 2001

21   Claims 1-4, 7-12, 14-16, 20-25, 29-32, and 34-36 stand rejected under

22 35 U.S.C. § 103(a) as unpatentable over McCall and official notice as

23 evidenced by Ikeda.

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1   Claims 1-4, 7-12, 14-16, 20-25, 29-32, and 34-36 stand rejected under

2   35 U.S.C. § 103(a) as unpatentable over McCall and Nicholson and official

3   notice as evidenced by Ikeda.

4   <div align="center">ISSUES</div>

5   The issues as to whether the contended limitations are described by the

6   art were resolved in the affirmative in the earlier Decision mailed August 11,

7   2009. Thus, the issues in the current appeal turn on whether the evidence of

8   commercial success is sufficient to show non-obviousness.

9   <div align="center">FACTS PERTINENT TO THE ISSUES</div>

10   The following enumerated Findings of Fact (FF) are believed to be

11   supported by a preponderance of the evidence.

12   *Facts Related to the Prior Art*

13   *McCall*

14   01.   McCall is directed to a promotional system utilized in

15   conjunction with a fuel dispenser that will allow promotional

16   discounts and other marketing type offerings to be provided to a

17   consumer based on the customer's purchasing habits. McCall

18   1:13-17.

19   02.   McCall couples a customer reward data processing system with

20   a fuel dispensing apparatus to allow a retailer to authorize

21   discounted fuel or other marketing promotions in accordance with

22   a customer's achievement of predefined purchasing criteria.

23   McCall 2:20-24.

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1   03.   The reward system will track the customer purchases and

2   compare them with a predefined criteria to determine when a fuel

3   discount is to be provided. These predefined criteria may include

4   whether the customer purchased items from a group of designated

5   products (e.g. promotional items) exceeded a quantity threshold, a

6   dollar value threshold, made purchases made on specific dates, or

7   the like. McCall 2:25-36.

8   04.   When a customer meets one of the predefined criteria, the

9   reward system will authorize a fuel discount or reward and

10   provide the customer with a mechanism to obtain the discounted

11   fuel. This mechanism can include a bar coded receipt, data on a

12   magnetic stripe card, an authorization identification number

13   sequence, or the like. The reward system also notifies a controller

14   in the fuel dispensing apparatus that a discount fuel sale is

15   authorized for a specific authorization code, as well as the amount

16   of the discount, e.g. $0.10 dollars per gallon. McCall 2:37-46.

17   05.   When purchasing fuel, the customer inputs the received

18   authorization code at the pump by scanning in the bar code from

19   the receipt, swiping a magnetic card, entering a code on a key pad,

20   or the like. The pump controller then compares the customer

21   entered authorization code with the code received from the reward

22   system. The pump controller then adjusts the purchase price by

23   subtracting the discount amount and allows the fuel to be

24   dispensed at that rate for this transaction only. At this time a point

25   of sale terminal associated with the fuel dispensing apparatus may

26   also be notified of the adjusted fuel price. McCall 2:47-57.

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1   06. Upon completion of the transaction, the controller notifies the

2   reward system that the discount fuel has been purchased by the

3   customer. The reward system then updates the record for this

4   customer accordingly. This information is then available to the

5   retailer that sets the purchasing criteria to use to develop new

6   marketing strategies. That is, the retailer needs to know that a

7   certain promotional activity is working in order to determine

8   whether to continue with the existing purchase criteria or change

9   the criteria to attract a larger number of customers. McCall 2:58-

10   67.

11   07. The process begins with a customer purchasing items at a point

12   of sale (POS) terminal. McCall 10:41-43. The customer identity

13   is also entered using a member card, personal identification

14   number (PIN) or the like (McCall 10:44-46). The data related to

15   the purchased items is transmitted to the server and the server

16   analyzes the received data. McCall 10:47-49.

17   08. The server makes a determination, based on the analysis of the

18   received data, "whether the current purchases will cause a fuel

19   discount to be offered." McCall 10:53-54. The determination can

20   be based on whether the purchase of specific items that trigger a

21   discount, or whether the total dollar value spent exceeds a

22   predefined threshold amount, or whether the total quantity of

23   items purchased exceeds a predefined threshold (McCall 10:54-

24   59).

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1   09.   If the determination is that no discount will be offered, the

2   process ends. McCall 10:60-62. If it is determined that a discount

3   will be offered, the server authorizes the discount, sends a signal

4   to the POS, and a discount coupon, authorization code, or other

5   discount mechanism is provided to the customer. McCall 10:62-

6   67.

Nicholson

8   10.   Nicholson is directed to the generation and redemption of

9   discount coupons for multiple vendors and controlling the

10   generation, distribution, and redemption of coupons, and the

11   allocation of discounted values to multiple vendors involved in

12   cross-marketing ventures. Nicholson 1:12-17.

13   11.   Nicholson provides multiple level discounts on a first product

14   to a customer who purchases at least one cross-marketed product

15   by awarding a first discount on the first product to the customer

16   based on a purchase by the customer of a first cross-marketed

17   product, awarding a second discount on the first product to the

18   customer based on a purchase by the customer of a second cross-

19   marketed product, adding the first discount to the second discount

20   to determine a total discount on the first product, and awarding the

21   total discount to the customer. Nicholson 2:40-50.

22   12.   Nicholson alternately provides a discount on a first product to a

23   customer who purchases at least one cross-marketed product by

24   awarding a first discount on the first product to the customer

25   based on a purchase by the customer of a first cross-marketed

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1 product, and then issuing a coupon to the customer which

2 provides a customer identification and a transaction identification.

3 A discount amount is stored in a discounts issued database which

4 associates the discount amount with the customer identification

5 and the transaction identification. This is followed by inputting,

6 by the customer in a subsequent transaction, the customer

7 identification and the transaction identification, retrieving the

8 discount amount from the discounts issued database, and reducing

9 the price of the first product by the discount amount. Nicholson

10 2:51-65.

11 13. In yet another alternative, Nicholson provides multiple level

12 discounts on gasoline to a customer who purchases at least one

13 cross-marketed product by awarding to the customer, a first

14 discount on the price-per-unit-volume of the gasoline based on a

15 purchase by the customer of a first cross-marketed product, and

16 awarding a second discount on the price-per-unit-volume of the

17 gasoline based on the purchase of a second cross-marketed

18 product. The first discount is then added to the second discount to

19 determine a total discount on the price-per-unit-volume of the

20 gasoline. A paper receipt is printed for the customer with a

21 customer identification and a transaction identification encoded in

22 a bar code thereon. The total discount, a maximum number of

23 volume units allowed, and a minimum purchase of gasoline

24 required in order to qualify for the discount are stored in a

25 discounts issued database which associates these data with the

26 customer identification and the transaction identification. The

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1   customer then scans the encoded bar code with a bar code scanner

2   at a gasoline dispenser. The total discount is retrieved from the

3   discounts issued database, and the gasoline station then reduces

4   the price-per-unit-volume of the gasoline by an amount equal to

5   the total discount. When the customer completes the gasoline

6   purchase, a value of the total discount redeemed is determined.

7   This is followed by verifying that the value of the total discount

8   redeemed is equal to or less than the maximum discount allowed,

9   and verifying that the amount of gasoline purchased is equal to or

10   greater than the minimum purchase required to qualify for the

11   discount. The value of the discount redeemed is then stored in a

12   discounts redeemed database, and portions of the discount

13   redeemed are allocated to vendors of the first and second cross-

14   marketed products according to predetermined criteria.

15   Nicholson 2:66 – 3:32.

16   14.   When a customer purchases items from the merchant, a point of

17   sale (POS) terminal determines which purchases qualify for a

18   discount on gasoline. Nicholson 5:21-24. The purchases discounts

19   are summed to determine a total discount value the customer is

20   qualified to receive. Nicholson 5:24-26. The identification of the

21   customer and total discount information are transmitted to the

22   merchant. Nicholson 5:26-28. The POS terminal prints a receipt

23   for the customer that includes the customer identification and

24   discount information. Nicholson 5:32-35.

25   15.   When a customer desires to redeem the discount, the printed

26   receipt is scanned at the gasoline pump dispenser causing the

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1   dispenser to send a start transaction message to the controller.

2   Nicholson 6:14-18. The controller determines an adjusted price

3   by subtracting the total discount from the normal price. Nicholson

4   6:29-31.

5 *Ikeda*

6   16.   Ikeda is directed to a point-service system for realizing a point-

7   service as a sales promotion service for a transaction in an online

8   shopping mall. Ikeda 1:7-10.

9   17.   When a customer decides to buy goods, the number of effective

10   accumulated points of the customer is displayed on the customer

11   terminal. Ikeda 2:51-59.

12   18.   In the order screen, a customer inputs whether to redeem all of

13   the accumulated points or the customer specifies the number of

14   points to redeem if the customer elects a partial redemption of

15   points when submitting an order. Ikeda 9:55-62. The order screen

16   displays the amount of points the customer has to select from to be

17   able to use for the current order. Figure 13.

18   ANALYSIS

19   We fully incorporate our findings of fact and analysis from the prior

20   Decision mailed August 11, 2009. In that Decision, the panel affirmed

21   substantially similar rejections over substantially similar claims. Subsequent

22   to that Decision, two evidence declarations were filed showing commercial

23   success and industry praise.

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1   As the issues of whether the prior art described the claim limitations and

2   whether there was a reason to combine the prior art in the manner claimed

3   articulated by the Examiner with a rational basis have already been settled,

4   the issue before us presently is whether, looking at claim 1 in its entirety in

5   light of the evidence provided in the Declarations, piecing together the

6   limitations in the manner claimed were not predictable.

7   We adopt the Examiner's findings of facts and analysis from Ans. 3-12,

8   and reach similar legal conclusions that the Declaration evidence is

9   insufficient to show non-obviousness. In particular, we find Appellants have

10   not shown a sufficient nexus between the sales figures presented and the

11   invention. Simply showing gross increases in grocery store sales is

12   insufficient, as such sales may be attributable to a virtually infinite array of

13   promotional efforts.

14   Most fatal to finding a nexus, however, is that the evidence is not

15   relative to that of applying the practice officially noticed and evidenced by

16   Ikeda's promotional techniques to either McCall or Nicholson. That is,

17   Appellants have not shown that the statistics and praise were unusual

18   compared to what McCall or Nicholson would have experienced using the

19   customer visibility and option generally known at the time and described by

20   Ikeda in particular. Neither have Appellants shown there was anything

21   unusual about Ikeda as an exemplar of this practice that would not have

22   commended its simple promotional scheme of providing visibility of

23   accumulated points to customers and allowing them the option to use them.

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1   CONCLUSIONS OF LAW

2   The rejection of claims 1-4, 7-12, 14-16, 20-25, 29-32, and 34-36 under

3   35 U.S.C. § 103(a) as unpatentable over McCall and official notice as

4   evidenced by Ikeda is proper.

5   The rejection of claims 1-4, 7-12, 14-16, 20-25, 29-32, and 34-36 under

6   35 U.S.C. § 103(a) as unpatentable over McCall and Nicholson and official

7   notice as evidenced by Ikeda is proper.

8   DECISION

9   The rejection of claims 1-4, 7-12, 14-16, 20-25, 29-32, and 34-36 is

10   affirmed.

11   No time period for taking any subsequent action in connection with this

12   appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R.

13   § 1.136(a)(1)(iv).

14

15   AFFIRMED

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19   mp

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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/975,277	10/28/2004	Russell G. Ross	076021-00604	6022

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1   UNITED STATES PATENT AND TRADEMARK OFFICE

2   ————————————

3

4   BEFORE THE BOARD OF PATENT APPEALS

5   AND INTERFERENCES

6   ————————————

7

8   *Ex parte* RUSSELL G. ROSS and REBECCA B. KANE

9   ————————————

10

11   Appeal 2009-003447

12   Application 10/975,277

13   Technology Center 3600

14   ————————————

15

16   Decided: August 11, 2009

17   ————————————

18

19 Before HUBERT C. LORIN, ANTON W. FETTING, and

20 JOSEPH A. FISCHETTI, *Administrative Patent Judges.*

21

22 FETTING, *Administrative Patent Judge.*

23

24   DECISION ON APPEAL

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Appeal 2009-003497
Application 10/975,277

STATEMENT OF THE CASE

Russell G. Ross and Rebecca B. Kane (Appellants) seek review under 35 U.S.C. § 134 (2002) of a final rejection of claims 1-4, 7-12, 14-16, 20-25, 29-32, and 34-36, the only claims pending in the application on appeal.

We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b) (2002).

SUMMARY OF DECISION

We AFFIRM.

THE INVENTION

The Appellants invented a system and method for providing discounts to customers who perform certain actions, such as purchasing gasoline using a customer identification number (Specification 1:7-12).

An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below [bracketed matter and some paragraphing added].

1. A method of providing a customer with an ability to purchase gasoline at a discount, said customer having customer identification information, the method comprising:

[1] determining accumulated discount information each time:

(i) said customer performs at least one of one or more predefined actions,

(ii) said customer identification information is received in association with said at least one of one or more predefined actions, and

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(iii) first information relating to said at least one of one or more
predefined actions is received, said accumulated discount information being
based on said first information;

[2] storing in a database said accumulated discount information in
association with said customer identification information;

[3] obtaining said customer identification information when said
customer initiates the purchase of gasoline;

[4] accessing said stored accumulated discount information from said
database using said customer identification information;

[5] determining an available discount level based on said accumulated
discount information that is accessed;

[6] presenting said available discount level to said customer;

[7] receiving from said customer in response to said presenting step
either an election not to take a discount or an election to take a discount
equal to an elected discount level;

[8] providing no discount to said customer on said purchase of
gasoline if said election not to take a discount is received; and

[9] providing said customer with a discount equal to said elected
discount level on said purchase of gasoline if said election to take a discount
equal to said elected discount level is received.

THE REJECTIONS

The Examiner relies upon the following prior art:

Ikeda et al.	US 5,937,391	Aug. 10, 1999
McCall et al.	US 6,321,984 B1	Nov. 27, 2001
Nicholson	US 6,332,128 B1	Dec. 18, 2001

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ARGUMENTS

Claims 1-4, 7-12, 14-16, 20-25, 29-32, and 34-36 under 35 U.S.C. § 103(a) as unpatentable over McCall or Nicholson

The Appellants argue these claims as a group.

Accordingly, we select claim 1 as representative of the group. 37 C.F.R. § 41.37(c)(1)(vii) (2008).

The Examiner found that McCall describes all of the limitations of claim 1, except for limitations [6] and [7]. Answer 3-7. The Examiner further found that, McCall failed to describe dependant claims 4 and 9. Answer 7. The Examiner also found that, Nicholson describes all of the limitations of claim 1, except for limitation [7]. Answer 9-13. The Examiner further found that, Nicholson fails to describe dependant claim 9. Answer 13. The Examiner found that, the features recited in limitations [6] and [7] of claim 1 as well as claims 4 and 9 were notoriously old and well-known in the art and as such took Official Notice of these features. Answer 7-8 and 13. The Examiner found that, a person with ordinary skill in the art would have recognized the benefit of presenting a user with options, thereby increasing customer satisfaction. The increased satisfaction would come from providing information to the user and receiving an election from the user that can be for a fraction of the available discount. Answer 8 and 14. The Examiner further found that, a person with ordinary skill in the art would have found it obvious to modify McCall or Nicholson to include these well known features. Answer 8 and 14.

The Appellants contend that: (1) the claims 1 and 22 require a discount to be determined and presented to the customer after the purchase of gasoline has been initiated by the customer, which was not common

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knowledge in the art, and therefore the Examiner's taking of Official Notice
was improper (App. Br. 8-9 and Reply Br. 2-3), and Ikeda does not support
the Examiner's taking of Official Notice (App. Br. 10 and Reply Br. 3-4);
(2) there is no motivation to combine McCall or Nicholson with the Official
Notice, and the Examiner, improperly, used the Appellants' disclosure as a
roadmap in reconstructing the prior art. Appeal Brief 14-16 and Reply Brief
4.

ISSUES

The issue pertinent to this appeal is whether the Appellants have
sustained their burden of showing that the Examiner erred in rejecting claims
1-4, 7-12, 14-16, 20-25, 29-32, and 34-36 under 35 U.S.C. § 103(a) as
unpatentable over McCall or Nicholson. The pertinent issue turns on
whether the Examiner's taking of Official Notice of certain facts was proper
and whether there is a motivation to modify McCall or Nicholson with the
Official Notice.

FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be
supported by a preponderance of the evidence.

Facts Related to the Prior Art

McCall

01. McCall is directed to a fuel dispenser with a promotional system
that provides promotional discounts and other marketing offerings to a
customer based on the customer's purchasing habits. McCall 1:13-17.

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02. The process begins with a customer purchasing items at a point of
sale (POS) terminal. McCall 10:41-43. The customer identity is also
entered using a member card, personal identification number (PIN) or the
like (McCall 10:44-46). The data related to the purchased items is
transmitted to the server and the server analyzes the received data. McCall
10:47-49.

03. The server makes a determination, based on the analysis of the
received data, "whether the current purchases will cause a fuel discount to be
offered." McCall 10:53-54. The determination can be based on whether the
purchase of specific items that trigger a discount, or whether the total dollar
value spent exceeds a predefined threshold amount, or whether the total
quantity of items purchased exceeds a predefined threshold (McCall 10:54-
59).

04. If the determination is that no discount will be offered, the process
ends. McCall 10:60-62. If it is determined that a discount will be offered,
the server authorizes the discount, sends a signal to the POS, and a discount
coupon, authorization code, or other discount mechanism is provided to the
customer. McCall 10:62-67.

Nicholson

05. Nicholson is directed to a system and method for controlling the
generation, distribution, and redemption of coupons, and the allocation of
discounted values to multiple vendors in cross-marketing ventures.
Nicholson 1:12-17.

06. When a customer purchases items from the merchant, a point of
sale (POS) terminal determines which purchases qualify for a discount on
gasoline. Nicholson 5:21-24. The purchases discounts are summed to

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determine a total discount value the customer is qualified to receive.
Nicholson 5:24-26. The identification of the customer and total discount
information are transmitted to the merchant. Nicholson 5:26-28. The POS
terminal prints a receipt for the customer that includes the customer
identification and discount information. Nicholson 5:32-35.

07. When a customer desires to redeem the discount, the printed
receipt is scanned at the gasoline pump dispenser causing the dispenser to
send a start transaction message to the controller. Nicholson 6:14-18. The
controller determines an adjusted price by subtracting the total discount from
the normal price. Nicholson 6:29-31.

Ikeda

08. Ikeda is directed to a point-service system for realizing a point-
service as a sales promotion service for a transaction in an online shopping
mall. Ikeda 1:7-10.

09. When a customer decides to buy goods, the number of effective
accumulated points of the customer is displayed on the customer terminal.
Ikeda 2:51-59.

10. In the order screen, a customer inputs whether to redeem all of the
accumulated points or the customer specifies the number of points to redeem
if the customer elects a partial redemption of points when submitting an
order. Ikeda 9:55-62. The order screen displays the amount of points the
customer has to select from to be able to use for the current order. Figure 13.

Facts Related To The Level Of Skill In The Art

11. Neither the Examiner nor the Appellants has addressed the level of
ordinary skill in the pertinent arts of discounting systems and customer
relationship management systems. We will therefore consider the cited prior

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art as representative of the level of ordinary skill in the art. See Okajima v.
Bourdeau, 261 F.3d 1350, 1355 (Fed. Cir. 2001) ("[T]he absence of specific
findings on the level of skill in the art does not give rise to reversible error
'where the prior art itself reflects an appropriate level and a need for
testimony is not shown'") (quoting Litton Indus. Prods., Inc. v. Solid State
Sys. Corp., 755 F.2d 158, 163 (Fed. Cir. 1985).

> *Facts Related To Secondary Considerations*

> 12. There is no evidence on record of secondary considerations of
non-obviousness for our consideration.

PRINCIPLES OF LAW

Obviousness

A claimed invention is unpatentable if the differences between it and
the prior art are "such that the subject matter as a whole would have been
obvious at the time the invention was made to a person having ordinary skill
in the art." 35 U.S.C. § 103(a) (2000); KSR Int'l Co. v. Teleflex Inc., 550
U.S. 398, 406 (2007); Graham v. John Deere Co., 383 U.S. 1, 13-14 (1966).

In Graham, the Court held that that the obviousness analysis is
bottomed on several basic factual inquiries: "[(1)] the scope and content of
the prior art are to be determined; [(2)] differences between the prior art and
the claims at issue are to be ascertained; and [(3)] the level of ordinary skill
in the pertinent art resolved." 383 U.S. at 17. See also KSR, 550 U.S. at
406. "The combination of familiar elements according to known methods is
likely to be obvious when it does no more than yield predictable results." Id.
at 416.

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ANALYSIS

Claims 1-4, 7-12, 14-16, 20-25, 29-32, and 34-36 under 35 U.S.C. §
103(a) as unpatentable over McCall or Nicholson

The Appellants contend, that (1) the claims 1 and 22 require a
discount to be determined and presented to the customer after the purchase
of gasoline has been initiated by the customer, which was not common
knowledge in the art and therefore the Examiner's taking of Official Notice
was improper (App. Br. 8-9 and Reply Br. 2-3) and furthermore Ikeda does
not support the Examiner's taking of Official Notice as per claims 1 and 22.
Appeal Brief 10 and Reply Brief 3-4.

We disagree with the Appellants. First, the scope Examiner's Official
Notice of facts that describe the features of the claimed invention shall be
determined since the Appellants are contesting whether the Examiner has
taken Official Notice of the appropriate facts. Appeal Brief 8-9. Limitation
[3] of claim 1 requires obtaining customer identification information when
the transaction to purchase gasoline is initiated. The Examiner took Official
Notice of the facts that the features of enabling a user to view accumulated
discount or point information during a transaction are old and well-known in
the art at the time of the invention. The facts taken under Official Notice
explicitly describe viewing information after a transaction has begun but has
not ended. Thus, the Examiner's Official Notice includes the fact that the
features of determining and presenting discount information to the customer
after the customer has initiated the purchase of an item as required by
limitation [3] of claim 1. As such, the Examiner Official Notice is directed
toward answer the appropriate inquiry.

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Next, whether the taking of these facts under Official Notice was proper, shall be determined. The Examiner submitted Ikeda, in support of the Official Notice taken, in order to demonstrate that these facts are capable of instant and unquestionable demonstration, as being well-known in the art. Ikeda describes that, when a customer initiates an order for items, the customer fills out information on the order entry screen. FF 10. Included in the order entry screen is the amount of points available for redemption. FF 10. Ikeda further describes that the customer can elect to use all of the available points or select a number of points for partial redemption for a transaction. FF 10. As such, Ikeda describes that the facts taken under Official Notice are capable of instant and unquestionable demonstration as being old and well-known in the art. As such, the Examiner's taking of Official Notice that the features enabling a user to view accumulated discounts or points information, during a transaction was proper and described in limitation [3] of claim 1.

The Appellants further contend that (2) there is no motivation to modify McCall or Nicholson with the Official Notice and the Examiner, improperly, used the Appellants' disclosure as a roadmap in reconstructing the prior art. Appeal Brief 14-16 and Reply Brief 4. We disagree with the Appellants. McCall and Nicholson are both concerned with providing discounts and promotional items in conjunction with the purchase of gasoline. FF 01 and FF 05. Both McCall and Nicholson accomplish this goal by determining whether a discount should be offered to a customer for the purchases made by the customer and providing a method for the customer to redeem the offered discount. FF 02, FF 03, FF 06, and FF 07.

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A person with ordinary skill in the art would have recognized the benefit of presenting a user with options and thereby increasing customer satisfaction by providing the features of presenting information to the user and receiving an election from the user that can be for a fraction of the available discount. As such, a person with ordinary skill in the art would have found it obvious to modify McCall or Nicholson with the Official Notice. Since the facts taken under Official Notice were notoriously old and well-known and McCall and Nicholson are concerned with the same problems, a person with ordinary skill in the art would have been lead to combine their teachings at the time of the claimed invention.

The Appellants have not sustained his burden of showing that the Examiner erred in rejecting claims 1-4, 7-12, 14-16, 20-25, 29-32, and 34-36 under 35 U.S.C. § 103(a) as unpatentable over McCall or Nicholson.

CONCLUSIONS OF LAW

The Appellants have not sustained their burden of showing that the Examiner erred in rejecting claims 1-4, 7-12, 14-16, 20-25, 29-32, and 34-36 under 35 U.S.C. § 103(a) as unpatentable over McCall.

The Appellants have not sustained their burden of showing that the Examiner erred in rejecting claims 1-4, 7-12, 14-16, 20-25, 29-32, and 34-36 under 35 U.S.C. § 103(a) as unpatentable over Nicholson.

DECISION

To summarize, our decision is as follows.

• The rejection of claims 1-4, 7-12, 14-16, 20-25, 29-32, and 34-36 under 35 U.S.C. § 103(a) as unpatentable over McCall is sustained.

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• The rejection of claims 1-4, 7-12, 14-16, 20-25, 29-32, and 34-36
under 35 U.S.C. § 103(a) as unpatentable over Nicholson is sustained.

No time period for taking any subsequent action in connection with
this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

mev

ECKERT SEAMANS CHERIN & MELLOTT
600 GRANT STREET
44TH FLOOR
PITTSBURGH, PA 15219

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Prosecution History Ser. No. 10/975,277

Date	Document
10/28/2004	PATENT APPLICATION
11/15/2004	PETITION TO MAKE SPECIAL
12/09/2004	NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION
12/27/2004	RESPONSE TO NOTICE TO FILE MISSING PARTS
12/27/2004	PRELIMINARY AMENDMENT
02/23/2005	DECISION ON PETITION TO MAKE SPECIAL (INFRINGEMENT)
08/27/2005	RECISSION OF PREVIOUS NONPUBLICATION REQUEST
08/31/2005	NOTICE OF PROJECTED PUBLICATION DATE
10/06/2005	RESTRICTION REQUIREMENT
11/03/2005	RESPONSE TO RESTICTION REQUIREMENT
01/05/2006	OFFICE ACTION/NON-FINAL REJECTION
01/31/2006	RESPONSE TO OFFICE ACTION
05/05/2006	OFFICE ACTION/NON-FINAL REJECTION
05/10/2006	RESPONSE TO OFFICE ACTION
07/24/2006	FINAL REJECTION
11/16/2006	REQUEST FOR CONTINUED EXAMINATION
11/16/2006	RESPONSE TO FINAL REJECTION
11/24/2006	NOTICE OF NON-COMPLIANT AMENDMENT
11/28/2006	RESPONSE TO NOTICE OF NON-COMPLIANT AMENDMENT
12/19/2006	OFFICE ACTION/NON-FINAL REJECTION
04/04/2007	RESPONSE TO OFFICE ACTION
06/18/2007	FINAL REJECTION
09/18/2007	NOTICE OF APPEAL
12/14/2007	APPEAL BRIEF
04/02/2008	EXAMINER'S ANSWER
05/27/2008	REPLY BRIEF
06/04/2008	NOTICE OF ENTRY OF REPLY BRIEF BY EXAMINER
01/20/2009	BPAI DOCKETING NOTICE
08/11/2009	DECISION ON APPEAL
10/09/2009	REQUEST FOR CONTINUED EXAMINATION
10/09/2009	RESPONSE TO FINAL REJECTION
10/29/2009	OFFICE ACTION/NON-FINAL REJECTION
01/27/2010	RESPONSE TO OFFICE ACTION

02/26/2010	OFFICE ACTION/NON-FINAL REJECTION
03/19/2010	OFFICE ACTION/NON-FINAL REJECTION
08/24/2010	NOTICE OF PROPRIETARY INFORMATION
08/24/2010	RESPONSE TO OFFICE ACTION
08/24/2010	PETITION FOR EXTENSION OF TIME
02/23/2011	NOTICE OF NON-COMPLIANT RESPONSE
03/23/2011	RESPONSE TO OFFICE ACTION
07/28/2011	NOTICE OF NON-COMPLIANT AMENDMENT
07/28/2011	OFFICE ACTION REVIEW
08/22/2011	RESPONSE TO NOTICE OF NON-COMPLIANT RESPONSE
10/18/2011	FINAL REJECTION
02/17/2012	NOTICE OF APPEAL
02/17/2012	PETITION FOR EXTENSION OF TIME
04/17/2012	APPEAL BRIEF
05/09/2012	EXAMINER'S ANSWER
07/06/2012	REPLY BRIEF
07/06/2012	REQUEST FOR ORAL HEARING
07/19/2012	BPAI DOCKETING NOTICE
02/28/2013	NOTICE OF HEARING
03/19/2013	NOTICE OF WAIVER OF HEARING BY APPELLANT
06/05/2013	DECISION ON APPEAL
08/05/2013	APPEAL TO COURT OF APPEALS

<u>Amendments to the claims:</u>

      1.   (Currently Amended) A method of providing a customer with an ability to purchase gasoline at a discount, said customer having customer identification information, the method comprising:

      determining <u>in a retailer computer system</u> accumulated discount information each time: (i) said customer performs at least one of one or more predefined actions, (ii) said customer identification information is received in association with said at least one of one or more predefined actions, and (iii) first information relating to said at least one of one or more predefined actions is received, said accumulated discount information being based on said first information;

      storing in a database said accumulated discount information in association with said customer identification information;

      obtaining said customer identification information when said customer initiates the purchase of gasoline <u>at a gasoline pump</u>;

      accessing said stored accumulated discount information from said database using said customer identification information;

      determining an available discount level based on said accumulated discount information that is accessed;

      presenting said available discount level to said customer;

      receiving from said customer in response to said presenting step either an election not to take a discount or an election to take a discount equal to an elected discount level;

      providing no discount to said customer on said purchase of gasoline if said election not to take a discount is received; and

      providing said customer with a discount equal to said elected discount level on said purchase of gasoline if said election to take a discount equal to said elected discount level is received.

      2.   (Previously Presented) The method according to claim 1, said customer having one or more customer identification elements each having said customer identification information associated therewith, wherein said customer identification

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information is received in association with said at least one of one or more predefined actions as a result of said customer allowing said customer identification information to be obtained using one of said one or more customer identification elements, and wherein said customer identification information is obtained when said customer initiates the purchase of gasoline using one of said one or more customer identification elements.

3.   (Previously Presented) The method according to claim 2, said one or more customer identification elements being a customer card, said customer identification information being provided on said customer card in bar code form, said customer identification information being obtained by reading said customer identification information from said customer card.

4.   (Previously Presented) The method according to claim 1, said gasoline having a per-unit price, said elected discount level being a per-unit discount amount, said step of providing said customer with a discount equal to said elected discount level on said purchase of gasoline comprising adjusting said per-unit price based on said elected discount level.

5.   (Withdrawn) A method according to claim 1, said determining step comprising converting said first information into a point value, and deriving said accumulated discount information from said point value.

6.   (Withdrawn) A method according to claim 5, further comprising:

     storing accumulated points information in association with said customer identification information; and

     determining new accumulated points information each time said first information is converted into a point value, said new accumulated points information being a sum of said point value and said accumulated points information;

     wherein said step of deriving said accumulated discount information comprises:

     (i) determining a first multiplier by determining the number of times said new accumulated points information is evenly divisible by a predetermined point amount;

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(ii) increasing said accumulated discount information by a first amount equal to said first multiplier multiplied by a predetermined discount amount; and

(iii) setting said accumulated points information equal to a value obtained by decreasing said new accumulated points information by a second amount equal to said first multiplier multiplied by said predetermined point amount.

7.   (Previously Presented) The method according to claim 4, said available discount level being the lesser of said per-unit price and said accumulated discount information.

8.   (Previously Presented) The method according to claim 7, wherein said elected discount level equals said available discount level.

9.   (Previously Presented) The method according to claim 7, wherein said elected discount level is a fractional discount amount equal to a fraction of said available discount level chosen by said customer.

10.   (Previously Presented) The method according to claim 9, further comprising decreasing said accumulated discount information by said fractional discount amount after said adjusting step and storing said decreased accumulated discount information in said database in association with said customer identification information.

11.   (Previously Presented) The method according to claim 8, further comprising decreasing said accumulated discount information by said available discount level after said adjusting step and storing said decreased accumulated discount information in said database in association with said customer identification information.

12.   (Previously Presented) The method according to claim 4, further comprising decreasing said accumulated discount information based on an amount by which said per-unit price is adjusted after said adjusting step and storing said decreased accumulated discount information in said database in association with said customer identification information.

13.   (Withdrawn) A method according to claim 1, said determining step comprising converting said first information into one of a point value and a discount amount, and deriving said accumulated discount information based on said one of a point value and a discount amount.

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14. (Previously Presented) The method according to claim 1, further comprising providing a discount report to said customer after said storing step, said discount report being based on said accumulated discount information.

15. (Previously Presented) The method according to claim 14, wherein said discount report is provided on a receipt.

16. (Previously Presented) The method according to claim 1, said one or more predefined actions being one or more of purchasing one or more items from a retail location or website, purchasing a particular item at said retail location or website, completing a predetermined event at said retail location, and presenting a discount containing coupon at said retail location.

17. (Withdrawn) A method according to claim 16, wherein when said one of said one or more predefined actions performed by said customer is purchasing one or more items from a retail location or website, said one or more items having a purchase amount, said first information comprises said purchase amount and said first information is converted into said point value based on a one point for each dollar of said purchase amount basis.

18. (Withdrawn) A method according to claim 16, wherein when said one of said one or more predefined actions performed by said customer is purchasing a particular item or brand from a retail location or website, said first information comprises an identification of said particular item or brand and said point value is a corresponding predetermined point value.

19. (Withdrawn) A method according to claim 16, wherein when said one of said one or more predefined actions performed by said customer is completing a particular predetermined event at a retail location, said first information comprises an identification of said particular predetermined event and said point value is a corresponding predetermined point value.

20. (Previously Presented) The method according to claim 13, wherein when said at least one of said one or more predefined actions performed by said customer is presenting a discount containing coupon at a retail location, said first information comprises discount information from said coupon and said discount amount is based on said discount information.

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21.   (Previously Presented) The method according to claim 2, said one or more customer identification elements being selected from the group consisting of a customer card, a key fob device, an RFID tag, a credit card, a debit card, a phone number, a social security number, a password, the customer's fingerprint, and the customer's retina.

22.   (Previously Presented) A system for providing a customer with an ability to purchase gasoline at a discount, said customer having customer identification information, comprising:

a main server;

a customer database in electronic communication with said main server, said customer database storing accumulated discount information in association with said customer identification information, said accumulated discount information being determined each time said customer performs at least one of one or more predefined actions and said customer identification information is obtained in association with said at least one of one or more predefined actions, said at least one of one or more predefined actions having first information related thereto, said accumulated discount information, when determined, being based on said first information;

a computing device located at a gas station location, said computing device being in electronic communication with said main server, said computing device being adapted to: (i) access said accumulated discount information from said main server based on said customer identification information when said customer initiates the purchase of gasoline at said gas station location, (ii) determine an available discount level based on said accumulated discount information that is accessed, (iii) cause said available discount level to be presented to said customer, (iv) receive from said customer in response to said available discount level being presented to said customer either an election not to take a discount or an election to take a discount equal to an elected discount level, (v) provide no discount to said customer on said purchase of gasoline if said election not to take a discount is received, and (vi) provide said customer with a discount equal to said elected discount level on said purchase of gasoline if said election to take a discount equal to said elected discount level is received.

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23.   (Previously Presented) The system according to claim 22, further comprising a point-of-sale terminal located at a retailer location and a gasoline pump located at said gas station location that is in electronic communication with said computing device located at said gas station location, said customer having one or more customer identification elements each having said customer identification information associated therewith, said point-of-sale terminal having a first reader device for reading one or more of said one or more customer identification elements, said gasoline pump having a second reader device for reading one or more of said one or more customer identification elements, wherein said customer identification information is obtained in association with said at least one of one or more predefined actions by reading one of said one or more customer identification elements using said first reader device, wherein said customer identification information is obtained when said customer initiates the purchase of gasoline at said gas station location by reading one of said one or more customer identification elements using said second reader device, and wherein said customer identification information is sent to said computing device located at said gas station location.

24.   (Previously Presented) The system according to claim 23, said one or more customer identification elements being a customer card, said customer identification information being provided on said customer card in bar code form, said first and second reader devices each comprising a bar code reader.

25.   (Previously Presented) The system according to claim 22, said gasoline having a per-unit price, said elected discount level being a per-unit discount amount, said computing device being adapted to provide said customer with a discount equal to said elected discount level on said purchase of gasoline by adjusting said per-unit price based on said elected discount level.

26.   (Withdrawn) A system according to claim 22, further comprising a retailer computing device in electronic communication with said main server, said retailer computing device receiving said first information and converting said first information into a point value when said customer performs said one of one or more predefined actions and said customer identification is obtained in association with said

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one of one or more predefined actions , said accumulated discount information, when determined, being based on said point value.

27.   (Withdrawn) A system according to claim 26, said customer database storing accumulated points information in association with said customer identification information, said retailer computing device being adapted to determine new accumulated points information each time said first information is converted into a point value, said new accumulated points information being a sum of said point value and said accumulated points information, wherein said accumulated discount information is determined by: (i) determining a first multiplier by determining the number of times said new accumulated points information is evenly divisible by a predetermined point amount, and (ii) increasing said accumulated discount information by a first amount equal to said first multiplier multiplied by a predetermined discount amount, and wherein said accumulated points information is set equal to a value obtained by decreasing said new accumulated points information by a second amount equal to said first multiplier multiplied by said predetermined point amount.

28.   (Withdrawn) A system according to claim 27, said accumulated discount information being determined by said main server and said accumulated points information being set by said main server.

29.   (Previously Presented) The system according to claim 25, said available discount level being the lesser of said per-unit price and said accumulated discount information.

30.   (Previously Presented) The system according to claim 29, wherein said elected discount level is equal to said available discount level.

31.   (Previously Presented) The system according to claim 29, wherein said elected discount level is a fractional discount amount equal to a fraction of said available discount level chosen by said customer.

32.   (Previously Presented) The system according to claim 24, wherein said main server is adapted to decrease said accumulated discount information based on an amount by which said per-unit price is adjusted by said computing device located at said gas station location, said decreased accumulated discount information being stored by said customer database in association with said customer identification information.

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33.   (Withdrawn) A system according to claim 22, further comprising a retailer computing device in electronic communication with said main server, said retailer computing device receiving said first information and converting said first information into one of a point value and a discount amount when said customer performs said one of one or more predefined actions and said customer identification element is obtained in association with said one of one or more predefined actions, said accumulated discount information being based on said one of a point value and a discount amount.

34.   (Previously Presented) The system according to claim 23, said point-of-sale terminal being adapted to provide a discount report to said customer, said discount report being based on said accumulated discount information.

35.   (Previously Presented) The system according to claim 34, said discount report being a receipt printed by said point-of-sale terminal.

36.   (Previously Presented) The system according to claim 23, said one or more customer identification elements being selected from the group consisting of a customer card, a key fob device, an RFID tag, a credit card, a debit card, the customer's fingerprint, and the customer's retina.

37-71. (Canceled)

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UTILITY
PATENT APPLICATION
TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	076021-00604
First Inventor	RUSSELL G. ROSS
Title	System and Method of Providing Discounts on the ·
Express Mail Label No.	EV 207370814 US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. [✔] **Fee Transmittal Form** (e.g., PTO/SB/17)
   (Submit an original and a duplicate for fee processing)
2. [ ] **Applicant claims small entity status.**
   See 37 CFR 1.27.
3. [✔] **Specification** [Total Pages ___34___]
   Both the claims and abstract must start on a new page
   (For information on the preferred arrangement, see MPEP 608.01(a))
4. [✔] **Drawing(s)** (35 U.S.C. 113) [Total Sheets ___4___]

5. **Oath or Declaration** [Total Sheets ___1___]
   a. [✔] Newly executed (original or copy)
   b. [ ] A copy from a prior application (37 CFR 1.63(d))
      (for continuation/divisional with Box 18 completed)
      i. [ ] DELETION OF INVENTOR(S)
         Signed statement attached deleting inventor(s)
         name in the prior application, see 37 CFR
         1.63(d)(2) and 1.33(b).

6. [✔] **Application Data Sheet.** See 37 CFR 1.76

7. [ ] **CD-ROM or CD-R** in duplicate, large table or
   Computer Program *(Appendix)*
   [ ] Landscape Table on CD

8. **Nucleotide and/or Amino Acid Sequence Submission**
   (if applicable, items a. – c. are required)
   a. [ ] Computer Readable Form (CRF)
   b. Specification Sequence Listing on:
      i. [ ] CD-ROM or CD-R (2 copies); or
      ii. [ ] Paper
   c. [ ] Statements verifying identity of above copies

ADDRESS TO: Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

ACCOMPANYING APPLICATION PARTS

9. [ ] **Assignment Papers** (cover sheet & document(s))

   Name of Assignee_____

10. [ ] **37 CFR 3.73(b) Statement**   [✔] **Power of**
    (when there is an assignee)   **Attorney**

11. [ ] **English Translation Document** *(if applicable)*

12. [✔] **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
    [ ] Copies of citations attached

13. [ ] **Preliminary Amendment**

14. [✔] **Return Receipt Postcard** (MPEP 503)
    (Should be specifically itemized)

15. [ ] **Certified Copy of Priority Document(s)**
    (if foreign priority is claimed)

16. [✔] **Nonpublication Request** under 35 U.S.C. 122(b)(2)(B)(i).
    Applicant must attach form PTO/SB/35 or equivalent.

17. [ ] **Other:**_____

18. If a CONTINUING APPLICATION, *check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:*

[ ] Continuation   [ ] Divisional   [ ] Continuation-in-part (CIP)   of prior application No.: ....

Prior application information: Examiner _____   Art Unit: _____

19. CORRESPONDENCE ADDRESS

[✔] The address associated with Customer Number: | 003705 | **OR** | [✔] Correspondence address below

Name	Philip E. Levy		
Address	Eckert Seamans Cherin & Mellott, LLC 600 Grant Street, 44th Floor		
City	Pittsburgh	State	PA	Zip Code	15219
Country	USA	Telephone	412.566.6043	Fax	412.566.6099

Signature		Date	October 28, 2004
Name (Print/Type)	Philip E. Levy	Registration No. (Attorney/Agent)	40,700

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

FEE TRANSMITTAL
for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

| **TOTAL AMOUNT OF PAYMENT** | ($) 1,778.00 |

Complete if Known

Application Number	
Filing Date	Filed Herewith
First Named Inventor	Russell G. Ross
Examiner Name	
Art Unit	
Attorney Docket No.	076021-00604

METHOD OF PAYMENT (check all that apply)

☐ Check ☑ Credit card ☐ Money Order ☐ Other ☐ None

☐ Deposit Account:

Deposit Account Number

Deposit Account Name

The Director is authorized to: (check all that apply)

☑ Charge fee(s) indicated below   ☑ Credit any overpayments

☑ Charge any additional fee(s) or any underpayment of fee(s)

☐ Charge fee(s) indicated below, **except for the filing fee**
to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code	Fee ($)	Small Entity Fee Code	Fee ($)	Fee Description	Fee Paid
1001	770	2001	385	Utility filing fee	790.00
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) ($) 790.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

	Extra Claims		Fee from below	Fee Paid
Total Claims	70 -20** = 50	X	18	= 900
Independent Claims	4 -3** = 1	X	88	= 88
Multiple Dependent				=

Large Entity Fee Code	Fee ($)	Small Entity Fee Code	Fee ($)	Fee Description
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) ($) 988

**or number previously paid, if greater; For Reissues, see above*

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code	Fee ($)	Small Entity Fee Code	Fee ($)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for *ex parte* reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) ($)

SUBMITTED BY			(Complete *if applicable*)
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Signature		Date	October 28, 2004

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NONPUBLICATION REQUEST UNDER 35 U.S.C. 122(b)(2)(B)(i)	First Named Inventor	RUSSELL G. ROSS
	Title	SYSTEM AND METHOD OF PROVIDING DISCOUNTS ON THE PURCHASE OF GASOLINE
	Attorney Docket Number	076021-00604

I hereby certify that the invention disclosed in the attached application **has not and will not be** the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing.

I hereby request that the attached application not be published under 35 U.S.C. 122(b).

_____
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10/28/04
_____
Date

Philip E. Levy
_____
Typed or printed name

40,700
_____
Registration Number, if applicable

412.566.6043
_____
Telephone Number

This request must be signed in compliance with 37 CFR 1.33(b) and submitted with the application **upon filing.**

Applicant may rescind this nonpublication request at any time. If applicant rescinds a request that an application not be published under 35 U.S.C. 122(b), the application will be scheduled for publication at eighteen months from the earliest claimed filing date for which a benefit is claimed.

If applicant subsequently files an application directed to the invention disclosed in the attached application in another country, or under a multilateral international agreement, that requires publication of applications eighteen months after filing, the applicant **must** notify the United States Patent and Trademark Office of such filing within forty-five (45) days after the date of the filing of such foreign or international application. **Failure to do so will result in abandonment of this application (35 U.S.C. 122(b)(2)(B)(iii)).**

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SYSTEM AND METHOD OF PROVIDING DISCOUNTS ON THE PURCHASE OF GASOLINE

5 ## BACKGROUND OF THE INVENTION

Field of the Invention

This invention relates to a system and method of providing discounts to customers on the purchase of gasoline, and in particular to a system and method in which customers earn discounts when performing certain actions, such as making

10 purchases, wherein the discounts are associated with customer identification information and may be redeemed by the customers when purchasing gasoline using the customer identification information .

Description of the Related Art

Many retailers, such as supermarkets, discount stores, warehouse

15 stores or clubs, convenience stores and the like, have programs in which customers are provided with cards, sometimes referred to as frequent shopper cards or loyalty cards, which enable the customers to receive discounts on selected products or other awards if the card is presented (and typically scanned) at the time of purchase. Such cards typically have customer identifying information encoded thereon, such as in the

20 form of an optically readable bar code or some other machine readable form, which link the customer and the card to a particular account and/or record associated with the customer. Many such retailers, in addition to offering their traditional products (e.g., food and household items), also sell gasoline. It would be advantageous for retailers that sell gasoline to be able to provide gasoline discounts to its customers

25 when the customers purchase the retailer's non-gasoline related products and/or utilize or purchase the retailer's non-gasoline related services as an inducement for customers to do so.

One prior art system for providing discounts on the purchase of gasoline based on the purchasing activity of customers is described in United States

30 Patent No. 6,321,984 B1. The disclosed system includes a data processing system that creates and maintains records in a database for customers that make purchases at an associated store. The system tracks the customer purchases and compares them to certain predefined criteria to determine whether the customers are eligible to receive a discount on the purchase of gasoline. The predefined criteria may include the

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purchase of items from a specified group or the purchase of a specified dollar value

threshold of items. When a customer meets one of the predefined criteria, the system

authorizes a gasoline discount award and provides the customer with a mechanism for

obtaining the discount. The mechanisms that are described include a paper receipt

5   having bar code data that authorizes the discount (that is to be read at the gasoline

pump), data authorizing the discount that is magnetically encoded onto a magnetic

strip card (that is also to be read at the gasoline pump), and an authorization

identification number (that is to be input by the customer, such as on a keypad, at the

gasoline pump). The mechanism, in whatever form, notifies a controller located in

10   the gasoline pump that a particular discount should be provided on that particular

gasoline purchase. United States Patent No. 6,332,128 describes a similar system in

which a gasoline discounts may be encoded in a bar code on a printed receipt,

encoded in a radio frequency identification (RFID) device, or magnetically encoded

on a frequent shopper card or other magnetic medium such as a prepaid card or credit

15   card. The problem with these systems is that the discount authorizing mechanism

itself is provided on an item that is physically possessed/carried by the customer. As

such, if lost or damaged, the discount is lost.

United States Patent No. 6,332,128 also describes an embodiment

wherein, when a customer makes a purchase that entitles him or her to a gasoline

20   discount, a receipt is printed for the customer that includes, in bar coded form,

customer identification and transaction identification information associated with the

discount. At the same time, transaction data that includes customer identification

information, transaction identification information and information relating to the

discount issued during the transaction is stored in a database record. As such, the

25   receipt provided to the customer is linked with the database record, and thus the

discount value. When a customer desires to redeem the discount, the customer takes

the receipt to the gas station where it is scanned by a bar code reader at the pump.

The pump, through a controller with which it is associated, accesses the appropriate

customer record from the database, and adjusts the price of the gasoline based on the

30   discount contained in the record. The problem with this approach is that there is a

1:1:1 relationship between the discount earning transaction, the discount that is

issued, and the paper receipt provided to the customer such that the customer receives

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a new receipt each time a discount is earned. The customer must then possess and keep track of multiple receipts in order to get the benefit of each issued discount. To get the benefit of the total of the discounts issued, the customer must scan several receipts, one for each transaction, at the pump. All of this is time consuming and

5   inconvenient for the customer. In addition, keeping track of (and not losing) multiple receipts may be difficult for many customers.

Thus there is a need for a system for enabling customers to earn discounts on the purchase of gasoline when performing certain actions at a retailer location, such as making purchases, wherein the discounts may be redeemed by the

10   customers when purchasing gasoline in which the discount authorizing mechanism itself is not provided on an item that is physically possessed/carried by the customer and in which the customer need not keep track of multiple items relating to a number of discounts earned. Such a system would avoid the problems encountered in the prior art, such as the loss of discounts due to lost or damaged discount authorizing

15   mechanisms and the difficulty and inconvenience of redeeming and keeping track of multiple discount authorizing mechanisms.

SUMMARY OF THE INVENTION

The present invention, in one embodiment, relates to a method of

20   providing a customer having customer identification information with a discount on the purchase of gasoline including determining accumulated discount information each time: (i) the customer performs one of one or more predefined actions, (ii) the customer identification information is received in association with the one of one or more predefined actions, and (iii) first information relating to the one of the one or

25   more predefined actions is received. The accumulated discount information is based on the first information. The accumulated discount information is stored in a database in association with the customer identification information. The method further includes obtaining the customer identification information when the customer initiates the purchase of gasoline, accessing the stored accumulated discount

30   information from the database using the customer identification information, providing the customer with an ability to elect a discount, if any, based on the

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accessed accumulated discount information, and providing the customer with an elected discount, if any, on the purchase of gasoline.

     The present invention, in another embodiment, relates to a method of providing a customer with a discount on the purchase of gasoline wherein the

5   customer has customer identification information associated with him or her that is used to track and redeem the discounts . The method includes determining accumulated discount information each time: (i) the customer performs one of one or more predefined actions, (ii) the customer identification information is received in association with the performed action, and (iii) first information relating to the

10   performed action is received. The accumulated discount information is determined by converting the first information into a point value, and deriving the accumulated discount information from the point value. The accumulated discount information is stored in association with the customer identification information. The method further includes obtaining the customer identification information when the customer

15   initiates the purchase of gasoline, obtaining the accumulated discount information using the customer identification information, and providing the customer with a discount on the purchase of gasoline based on the accumulated discount information.

    In either embodiment, the per-unit price of the gasoline may be adjusted based on the accumulated discount information. Alternatively, a fixed

20   discount amount may be deducted from the total gasoline purchase price on a particular occasion.

    According to a preferred embodiment, the customer has or is provided with one or more customer identification elements which have the customer identification information associated therewith. For example, the customer

25   identification element may be a customer card having customer identification information provided thereon in machine readable form, such as bar code form. In this embodiment, the customer allows the customer identification information to be obtained using the customer identification element, for example by reading a customer card, in association with the performed action. In addition, the customer

30   identification information is obtained at the time of the gasoline purchase in this embodiment using the customer identification element.

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When the method involves converting the first information into a point value and deriving the accumulated discount information from the point value, the method may also further include storing accumulated points information in association with the customer identification information, and determining new

5   accumulated points information each time the first information is converted into a point value, wherein the new accumulated points information is a sum of the point value and the accumulated points information. Then, the step of deriving the accumulated discount information may include determining a first multiplier by determining the number of times the new accumulated points information is evenly

10   divisible by a predetermined point amount, increasing the accumulated discount information by a first amount equal to the first multiplier multiplied by a predetermined discount amount, and setting the accumulated points information equal to a value obtained by decreasing the new accumulated points information by a second amount equal to the first multiplier multiplied by the predetermined point

15   amount.

In another embodiment, the adjusting step includes determining an available discount amount that is the lesser of the per-unit price and the accumulated discount information, and reducing the per-unit price based on the available discount amount. In addition, the per-unit price may be reduced by the available discount

20   amount. Alternatively, the per-unit price may be reduced by a fractional discount amount from said customer that is a fraction of the available discount amount. The method also preferably includes decreasing the accumulated discount information based on an amount by which the per-unit price was adjusted and storing the decreased accumulated discount information in association with the customer

25   identification information.

The predefined actions performed by the customer to obtain a discount may include, without limitation, one or more of purchasing items from a retail location, purchasing a particular item at the retail location, completing a predetermined event at the retail location, and presenting a discount containing

30   coupon at the retail location. In the case where the predefined action performed by the customer is purchasing a plurality of items from a retail location, the first information may be converted into a point value based on a one point for each dollar

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of the purchase amount basis. Alternatively, conversions may be based on predetermined fixed point values for each action.

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The present invention, in another embodiment, also relates to a system for providing a customer having customer identification information with a discount on the purchase of gasoline. The customer identification information may be associated with one or more customer identification elements such as a customer card having the customer identification information provided thereon in machine readable form, such as bar code form. The system includes a main server and a customer database in electronic communication with the main server. The customer database

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stores accumulated discount information in association with the customer identification information, wherein the accumulated discount information is determined each time the customer performs one of one or more predefined actions and the customer identification information is obtained in association with the one of one or more predefined actions. The one of one or more predefined actions has first

15
information related thereto, and the accumulated discount information, when determined, is based on the first information. The system also includes a computing device located at a gas station location that is in electronic communication with the main server. The computing device is adapted to access the accumulated discount information from the main server based on the customer identification information

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when the customer initiates the purchase of gasoline at the gas station location, provide the customer with an ability to elect a discount, if any, based on the accessed accumulated discount information, and provide the customer with an elected discount, if any, on the purchase of

25
The invention, in yet another embodiment, also relates to a system for providing a customer with a discount on the purchase of gasoline, wherein the customer has customer identification information associated with him or her that is used to track and redeem the discounts. The customer identification information may be associated with one or more customer identification elements such as a customer card having the customer identification information provided thereon in machine

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readable form, such as bar code form. The system includes a main server and a customer database in electronic communication with the main server. The customer database stores accumulated discount information in association with the customer

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identification information. The accumulated discount information is determined each time the customer performs one of one or more predefined actions, such as those described above, and the customer identification information is obtained in association with the performed predefined action. The performed predefined action

5   has first information related thereto, and the accumulated discount information, when determined, is based on the first information by converting the first information into a point value and deriving the accumulated discount information from the point value. The system also includes a computing device located at a gas station location that is in electronic communication with the main server. The computing device is adapted to

10   obtain the accumulated discount information from the main server based on the customer identification information and provide the customer with a discount on the purchase of gasoline based on the accumulated discount information.

In either embodiment, the system may include a point-of-sale terminal located at the retailer location for obtaining the customer identification information

15   from one of the customer identification elements, such as by using a reader device. In addition, a gasoline pump at the gas station location may obtain the customer identification information from one of the customer identification elements, such as by using a reader device provided with the gasoline pump.

In addition, the customer database may store accumulated points

20   information in association with the customer identification information, and the retailer computing device may be adapted to determine new accumulated points information each time the first information is converted into a point value. The accumulated discount information in this case is determined, for example by the main server, by: (i) determining a first multiplier by determining the number of times the

25   new accumulated points information is evenly divisible by a predetermined point amount, and (ii) increasing the accumulated discount information by a first amount equal to the first multiplier multiplied by a predetermined discount amount. Also, the accumulated points information is set, for example by the main server, equal to a value obtained by decreasing the new accumulated points information by a second

30   amount equal to the first multiplier multiplied by the predetermined point amount.

The computing device located at the gas station location may be further adapted to determine an available discount amount that is the lesser of the per-

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unit price and the accumulated discount information, and reduce the per-unit price based on the available discount amount. In particular, the per-unit price may be reduced by the available discount amount, or, alternatively, a fractional discount amount received from the customer. Finally, the point-of-sale terminal may be

5   adapted to provide a discount report, such as on a printed receipt, to the customer that is based on the accumulated discount information.

BRIEF DESCRIPTION OF THE DRAWINGS

These and other advantages of the present invention will become

10   readily apparent upon consideration of the following detailed description and attached drawings, wherein:

Figure 1 is a block diagram of a system for providing discounts to customers on the purchase of gasoline according to the present invention;

Figure 2 is a flowchart of one embodiment of a method of providing

15   discounts on the purchase of gasoline to customers based on certain events occurring at the retailer location shown in Figure 1 according to the present invention; and

Figures 3a and 3b are flowcharts of one embodiment of a method of redeeming discounts on the purchase of gasoline earned according to the method shown in Figure 2.

20   ## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Figure 1 is a block diagram of a system 5 for providing discounts to customers on the purchase of gasoline using customer identification information associated with the customer according to the present invention. As seen in Figure 1, system 5 includes point-of-sale (POS) terminal 10 and retailer computer system 15

25   located at retailer location 20, such as a supermarket, convenience store or the like. Point-of-sale terminal 10 is a computerized device that is, among other things, able to read encoded, machine readable information, such as a bar code (e.g., UPC symbol) or RFID tag, provided on products and other items. In addition, point-of-sale terminal 10 is also able to receive customer identification information, preferably by

30   obtaining the customer identification information from an associated customer identification element as described herein. For example, point-of sale-terminal 10 may be able to read bar coded or other machine-readable customer identification information from a customer card issued to the retailer's customers. Point-of-sale

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terminal 10 may be a cash register system that is commonly found in supermarkets. Point-of-sale terminal 10 is in electronic communication with retailer computer system 15 to enable information received by point-of-service terminal 10 to be sent to retailer computer system 15. Retailer computer system 15 may be any type of general

5   purpose computing device such as a personal computer (PC), a server computer, or a PC in communication with a server computer. Retailer computer system 15 is provided with software that enables it to process and facilitate purchases being made by the retailer's customers and to perform the steps of the present invention as described herein. A suitable example of such software is the IBM ACE POS system

10   that is customized and configured according to the present invention.

System 5 also includes main server 25, preferably located in a centralized location remote from retailer location 20. Main server 25 is a server computer provided with a software application that enables the retailer to implement a customer loyalty program wherein customers are assigned an account with associated

15   customer identification information for identifying the customer (such as, for example, a unique ID number). Under the program, customers are able to earn rewards and discounts based on purchases or other activities. The software application also enables the retailer to collect important customer related data for use in, for example, marketing efforts. One suitable example of such a software

20   application is the IBM Electronic Marketing Enterprise (EME) Solution. Preferably, although not necessarily, each customer has or is provided with a customer identification element that has the customer identification information for identifying the customer associated therewith, such as information provided thereon in machine readable form like bar code form. Main server 25 is in electronic communication

25   with customer database 30, which stores data relating to the customers of the retailer that is collected by the main server 25, including the discount related information of the present invention that is described herein.

As seen in Figure 1, system 5 further includes gas station computer system 35 and gasoline pump 40 located at a gas station location 45. Gas station

30   location 45 is preferably a gas station owned and/or operated by the retailer described above. Such a gas station may be located adjacent to retailer location 20 (outside and close to a main store), or may be part of a convenience store owned and/or operated

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by the retailer. Alternatively, the gas station location 45 may be a remotely located gas station owned and/or operated by the retailer or another entity that is affiliated with the retailer for purposes of the operation of system 5. Gas station computer system 35 may be any type of general purpose computing device such as a PC, a

5   server computer or a PC in communication with a server computer. In addition, gas station computer system 35 is in electronic communication with both main server 25 and gasoline pump 40 to enable data and commands to be exchanged therebetween. Gasoline pump 40 is a conventional gasoline pump that includes a computing device, such as a microprocessor or controller, for controlling the operation thereof.

10   Gasoline pump 40 is adapted to receive customer identification information as described above in connection with the purchase of gasoline. In the preferred embodiment, gasoline pump 40 includes a reading device, such as a known bar code reader, capable of reading customer identification information associated with customer identification elements, such as bar coded customer identification

15   information encoded on a customer card, as described above. Gas station computer system 35 includes software, such as a known POS software system, for processing and facilitating the purchase of gasoline and other items at gas station location 45 that is customized and configured to perform the steps of the present invention as described herein.

20   Although only a single point-of-sale terminal 10 and a single retailer location 20 are shown in Figure 1, it will be appreciated that multiple point-of-sale terminals 10 may be connected to retailer computer system 15 and that multiple retailer locations 20 each having a retailer computer system 15 connected to one or more point-of-sale terminals 10 and main server 25 may be provided without

25   departing from the scope of the present invention. As such, a customer may perform discount earning actions at multiple retailer locations 20, with credit for each being stored in customer database 30. Similarly, multiple gas station locations 45 each having a gas station computer system 35 connected to multiple pumps 40 and to main server 25 may be provided without departing from the scope of the present invention

30   so that customers can redeem discounts at multiple locations. Furthermore, as will be appreciated, in certain situations retailer computer system 15 and gas station computer system 35 may be the same device. For example, in the case of a convenience store

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having a gas station, retailer location 20 and gas station location 45 may be one and the same and retailer computer system 15 and gas station computer 35 may be one and the same, wherein a customer may perform an action at the gas station that results in discounts being earned and then redeem the discount at the pump 40 at the same
5   gas station.

Referring to Figure 2, a flowchart is provided that illustrates a method according to an aspect of the present invention wherein customers earn discounts on the purchase of gasoline based on certain predefined events or actions taking place at retailer location 20 shown in Figure 1. As described above, system 5 contemplates
10   that the retailer in question has implemented a program wherein customers may earn discounts and rewards in association with customer identifying information. In the preferred embodiment, each customer has or is provided with one or more customer identification elements that each have customer identification information associated therewith. As used herein, the term customer identification element refers to any
15   device, component, part, piece of information or other means having customer identification information associated therewith that enables the customer to be identified by the retailer in question. Examples of customer identification elements include, without limitation, a customer card having customer identification information provided thereon in bar code or magnetically encoded form, a key fob
20   device, an RFID tag, a credit card or debit card (having the account number linked with the customer identifying information), a phone number, a social security number, a password, or even the customer's fingerprint or retina that may be scanned and read by an appropriate device and matched with an associated customer ID number or the like that is used to identify the customer. In the preferred embodiment of the present
25   invention, the customer identification elements used are customer cards having customer identification information provided thereon. For convenience and ease of description, that type of customer identification element will be used in the following description. However, it will be appreciated that other types of customer identification elements, alone or in combination, may be used and substituted for the
30   customer cards without departing from the scope of the present invention.

The method begins at step 100, where a customer visits retailer location 20 and performs a discount earning action. Discount earning actions may

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include, without limitation, purchasing items such as groceries (based on, for example, dollar amounts or number of units) from the retailer or an affiliated third party, purchasing particular products or brands from the retailer or an affiliated third party, joining a club or service offered by the retailer, bringing a new prescription to a

5   pharmacy located at the retailer location 20, using a particular bank's debit or credit card for purchases, using the customer's customer card for the first time, presenting a coupon or similar item provided to the customer, such as a coupon indicating that a certain discount will be awarded if the coupon is presented with a purchase using a retailer or affiliated third party service, such as the photo lab, child care or pharmacy,

10   for the first time or a fixed number of times, purchasing from a particular retailer department, such as the bakery or deli, visiting and/or purchasing products or services using the retailer's or affiliated third party's website or answering a retailer survey. In addition, before, during or after the discount earning action, the customer identification information is received by point-of-sale terminal 10. In the preferred

15   embodiment, the customer identification information is read from the customer's customer card that includes a bar code that includes a unique customer identification number. Specifically, this bar code is read by a bar code reader provided as part of point-of-sale terminal 10.

Next, at step 105, certain information relating to the discount earning

20   action, such as the dollar amount of the purchase, the particular item or brand purchased, the number of units of an item or items that are purchased, or the happening of one of the other events described above, and the customer identification information are sent from point-of-sale terminal 10 to retailer computer system 15. Then, at step 110, retailer computer system 15 requests certain information for the

25   customer from main server 25 using the received customer identification information. Specifically, customer database 30 stores for each participating customer, *e.g.*, those having a customer card, a record that includes accumulated points information and accumulated discount information, each of which are described in greater detail below. When requested, that information is retrieved by main server 25 from

30   customer database 30 and is sent to retailer computer system 15 as shown in step 115.

According to the preferred embodiment of the present invention, each of the discount earning actions is converted into either a predetermined number of

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points or a predetermined discount amount, which points and/or discount amounts may then be used as described herein to determine particular discount levels earned by the customer. Thus, at step 120, retailer computer system 15 converts the event related information received from point-of-sale terminal 10 into either a

5 predetermined point value or a particular predetermined discount amount. For example, it may be predetermined that one point is earned for each dollar spent by the customer on items at retailer location 20, or that a predetermined number of points, such as 20, are earned when a particular item or brand is purchased or when an action such as joining a club, providing a new prescription, or the like has taken place.

10 Alternatively, it may be predetermined that any of these actions may correspond to a particular discount amount rather than a number of points, such as a 10 cent per gallon discount on gasoline. The conversion process may also be dynamic in that different discount levels may be awarded for actions depending on the status of the customer (e.g., customers that purchase in excess of a preset annual amount at the retailer may

15 get larger discounts than other customers). Once the conversion is complete at step 120, retailer computer system 15 sends a point and discount update message to main server 25 as shown at step 125. Based on this message, main server 25 is able to update the accumulated points information and accumulated discount information that is stored in the record associated with the customer in customer database 30 to reflect

20 the recent customer activity. It will be appreciated, however, that this preferred embodiment is only one embodiment of the present invention, and that other methods of determining discount levels based on customer actions may be used.

According to one particular embodiment of the present invention, a customer earns a predetermined discount amount each time a predetermined amount

25 of points is accumulated by the customer as reflected in the accumulated points information stored in customer database 30. That predetermined discount amount, when earned, is added to the accumulated discount information stored in customer database 30. For example, a customer may earn a 10 cent per gallon discount on gasoline each time the number of points accumulated by the customer reaches 50.

30 Once this threshold is reached, the accumulated points information value is returned to zero, and the accumulated discount information value is incremented by the predetermined discount amount (e.g., 10 cents). This particular embodiment may be

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implemented as follows (although, as will be appreciated, other implementations are possible). First, retailer computer system 15 adds the points earned as determined at step 120 to the accumulated points information value received in step 115 to establish a new accumulated points information value. Retailer computer system 15 then

5   determines how much of the new accumulated points information value is "redeemable" for discount value by determining how many multiples of the predetermined amount of points described above (that must be accumulated to earn a discount) are present in the new accumulated points information value. In other words, a determination is made as to how many times the accumulated points

10   threshold described above may be reached. For example, if the accumulated points information value received at step 115 is 5, and the earned points value as determined at step 120 is 120, and if the predetermined discount amount of 10 cents per gallon is earned every time 50 points is accumulated, retailer computer system 15 will determine that the new accumulated points information value is 125 with 100 points

15   being redeemable. A message to that effect is sent to main server 5 at step 125.

At step 130, main server 5 updates the customer's record in customer database 30 based on the point and discount update message that is received. In particular, main server 5 updates the accumulated points information value and accumulated discount information value stored for that customer in customer database

20   30 based upon the point and discount update message it has received. In the particular implementation described above, main server 25 will subtract the number of redeemable points from the new accumulated points information value (both as determined by retailer computer system 15) and will store that value as the current accumulated points information value for the customer in customer database 30.

25   Next, main server 25 will take the number of redeemable points and divide that value by the predetermined amount of points required for earning a discount to determine the number of "units" of the predetermined discount amount that the customer has earned. That discount amount is then added to the accumulated discount information value stored for the customer in customer database 30. For example, continuing with

30   the example provided above, if a 10 cent per gallon discount is earned each time the customer accumulates 50 points, then main server 25 will add a 20 cents per gallon discount (100/50 x 10 cents/gallon) to the accumulated discount information value

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stored for the customer in customer database 30. Also, the main server 25 will subtract 100 (the redeemable points) from 125 (the new accumulated points information value), and store that value (25) as the current accumulated points information value for the customer.

5   In the preferred embodiment, the method proceeds to step 135, in which the retailer computer system 15 generates point and discount report information consisting of the currently stored accumulated points information and accumulated discount information values for the customer and sends that information to point-of-sale terminal 10. Next, at step 140, point-of-sale terminal 10 provides a point and

10 discount report to the customer based on the point and discount information received from the retailer computer system 15. The report may be provided, for example, on a printed receipt provided to the customer. The report will preferably include a listing of the customer's current accumulated points information value and the customer's current accumulated discount information value for their reference. At this point, the

15 transaction is complete and the customer may leave retailer location 20.

         In another embodiment, customers may be able to access discount related information, such as the customer's current accumulated points information value and the customer's current accumulated discount information value, using a secure (e.g., password protected) internet connection. In this case, the relevant

20 information will be obtained from customer database 30 and presented to the customer through an appropriate website.

         In the preferred embodiment shown in Figure 2, the customer identification information is received and discounts are credited to the customer contemporaneously with the action in question. It will be appreciated, however, that

25 this need not necessarily be the case. As an alternative, the customer identification information may be received by the retailer and discounts may be credited to the customer some time after the action in question has been completed. For example, the retailer could determine that customers will earn discounts by participating in a charity event. After the event, the customer may provide their customer identification

30 number to the retailer, along with proof of participation in the event, and the retailer will credit them with the appropriate discount in customer database 30. Similarly, customers may be able to earn discounts by making purchases through the retailer's or

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an affiliated third party's website or by making purchases at an affiliated third party retailer, such as a coffee shop or book store. Some time after these events take place, the retailer will credit the customers with the appropriate discounts (based on information relating to the event) in customer database 30. Still other examples may

5   include situations where a customer joins a club or other service offered by the retailer or elects to receive email from the retailer, wherein the customer identification information is provided to the retailer later in time and the retailer later credits them with the appropriate discount. As will be appreciated, the retailer may accomplish this (actually crediting the customer subsequent to a discount earning action or event)

10   using a computer system (not shown) that has access to customer database 30 through main server 25 or that is directly connected to customer database 30.

        Referring to Figures 3a and 3b, a flowchart is provided that illustrates a preferred embodiment of a method according to an aspect of the present invention wherein customers are able to redeem discounts on the purchase of gasoline that were

15   earned in the manner described in connection with Figure 2. The method begins at step 150, where a customer that has earned gasoline discounts visits a participating gas station, such as gas station location 45 shown in Figure 1 (as described above, retailer location 20 and gas station location 45 may actually be one and the same). In the preferred embodiment, the customer utilizes the reader provided on pump 40 to

20   read the customer identification information from the customer's customer card (or some other customer identification element). The customer card, in this preferred embodiment, includes a bar code containing this information, and the customer swipes the bar code past the bar code reader provided on pump 40. The customer then chooses a grade of gasoline that he or she wishes to purchase. Next, at step 155,

25   the customer identification information is sent to the gas station computer system 35 by pump 40. At step 160, the gas station computer system 35 then requests the accumulated discount information for the particular customer from main server 25 using the customer identification information that was read by pump 40. In response to this request, the main server accesses the accumulated discount information from

30   customer database 30 and, at step 165, sends the accumulated discount information to gas station computer system 35. It will be appreciated that other methods of obtaining the customer identification information at gas station location 45 are possible. For

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example, pump 40 may obtain debit card information from the customer, which is used to obtain the customer identification information and ultimately the associated customer identification information.

As described above, the accumulated discount information will
5   preferably be a particular total price per gallon discount that has been earned and accumulated by the customer. The discount information could also include fixed dollar amounts to be deducted from a particular purchase. At step 170, gas station computer system 35 determines the discount level that is available to the customer for use in the current transaction based on the accumulated discount information received
10   from main server 25 and the gasoline price for the grade of gasoline chosen by the customer. In particular, in the preferred embodiment, the maximum discount level that will be available to a customer is the current price per gallon of the grade of gasoline chosen by the customer. In other words, the current price per gallon of gasoline is preferably, although not necessarily, the upper limit of the discount that is
15   available, in which case the customer will be able to purchase a predetermined amount of gasoline at no charge. Thus, the available discount will preferably be the lesser of the price per gallon of the gasoline and the accumulated discount information value. If the accumulated discount information represents a price per gallon discount that is greater than the price per gallon of the gasoline chosen by the customer, the
20   excess amount, in the preferred embodiment, will be saved by system 5 for future use by the customer.

Next, the available discount level determined in step 170 is, at step 175, sent to pump 40 and is displayed to the customer on a display provided on pump 40. At step 180, a determination is then made as to whether the customer wants to use
25   the available discount on the current transaction. If the customer chooses not to use the available discount, such as by providing an indication to that effect on a keyboard or the like provided on pump 40, then, at step 185, the customer pumps the desired amount of gasoline at the current, non-discounted price. As seen at step 190, gas station computer system 35 then sends an update message to main server 25 which, in
30   this case, will indicate that the customer has not used any of the accumulated discount information value. In response, of main server 25 will not make any changes to the customer's record stored in customer database 30.

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If, however, the answer at step 180 is yes (the customer wants to use a discount), a determination is made at step 195, again using a display and a keyboard or the like provided on pump 40, as to whether the customer wants to use the full discount that is available, or, alternatively, some fraction of the full discount that is

5   available. If the customer chooses to use the full discount, then, at step 195, the price of the grade of gasoline chosen by the customer is adjusted based upon the full discount amount, and the customer then pumps the desired amount of gasoline, preferably up to some predetermined volume limit amount (*e.g.,* a maximum number of gallons), using pump 40. For example, if the price per gallon was $1.90 and the

10   available discount was 50 cents per gallon, the price of the gasoline would be adjusted to $1.40 per gallon. If, however, the answer at step 195 is no, meaning that the customer only wishes to use a fraction of the available discount, the customer enters the desired discount amount using a keyboard or the like provided on pump 40 and, at step 205, the pump 40 adjusts the price per gallon of the gasoline based upon the

15   selected discount level. The customer then pumps the desired amount of gasoline, again up to a predetermined volume limit in the preferred embodiment, using pump 40. For example, if the price per gallon of gasoline is $1.90, and the customer has an available discount of 50 cents per gallon, yet chooses to use only 20 cents per gallon, the price per gallon of the gasoline would be adjusted to $1.70.

20   Following either step 200 or 205, whichever is appropriate in the current situation, the gas station computer system 35 sends an update message to main server 25 indicating the amount of discount that has been used at step 210. In particular, gas station computer system 35 will send a message that indicates either that the full available discount amount has been used or, if appropriate, the particular

25   fraction of the full available discount that has been used. Next, at step 215, the main server 25 updates the customer's record in customer database 30 to reflect that a discount has been used. In particular, the accumulated discount information value stored in customer database 30 for the customer will be decreased in an amount equal to the discount that was used by the customer in the particular transaction (either the

30   full available discount as determined at step 125, or some fraction thereof specified by the customer). For example, if the accumulated discount value stored in customer database 30 prior to step 150 was 50 cents per gallon, and the customer chose to

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utilize a 20 cent per gallon discount, the available discount information value stored in customer database 30 would be decreased from 50 cents per gallon to 30 cents per gallon, meaning that a 30 cent discount would be available for the customer for use in future transactions.

5   Thus, the present invention provides a system and method for enabling customers to earn discounts on the purchase of gasoline when performing certain actions at a retailer location, such as making purchases, which avoids problems such as the loss of discounts due to lost or damaged discount authorizing mechanisms and the difficulty and inconvenience of redeeming and keeping track of multiple discount

10   authorizing mechanisms. The present invention does so by storing discount related information at a central location and enabling the discounts to be redeemed by the customers when purchasing gasoline using the customer's customer identification information. As such, the discount authorizing mechanism itself is not provided on an item that is physically possessed/carried by the customer and the customer need

15   not keep track of multiple items relating to multiple discounts that are earned. In addition, from a retailer perspective, the present invention allows retailers to better track and manage total discount amounts that are outstanding, enables retailers to provide better customer service as each customer's discount data is contained in a central location, and enables retailers to target market products based on the fuel

20   related purchasing activities of customers.

While specific embodiments of the invention have been described in detail, it will be appreciated by those skilled in the art that various modifications and alternatives to those details could be developed in light of the overall teachings of the disclosure. Accordingly, the particular arrangements disclosed are meant to be

25   illustrative only and not limiting as to the scope of the invention which is to be given the full breadth of the claims appended and any and all equivalents thereof.

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What is claimed is:

1.   A method of providing a customer with a discount on the purchase of gasoline, said customer having customer identification information, the method comprising:

determining accumulated discount information each time: (i) said customer performs one of one or more predefined actions, (ii) said customer identification information is received in association with said one of one or more predefined actions, and (iii) first information relating to said one of said one or more predefined actions is received, said accumulated discount information being based on said first information;

storing in a database said accumulated discount information in association with said customer identification information;

obtaining said customer identification information when said customer initiates the purchase of gasoline;

accessing said stored accumulated discount information from said database using said customer identification information;

providing said customer with an ability to elect a discount, if any, based on said accessed accumulated discount information; and

providing said customer with an elected discount, if any, on said purchase of gasoline.

2.   A method according to claim 1, said customer having one or more customer identification elements each having said customer identification information associated therewith, wherein said customer identification information is received in association with said one of one or more predefined actions as a result of said customer allowing said customer identification information to be obtained using one of said one or more customer identification elements, and wherein said customer identification information is obtained when said customer initiates the purchase of gasoline using one of said one or more customer identification elements.

3.   A method according to claim 2, said one or more customer identification elements being a customer card, said customer identification information being provided on said customer card in bar code form, said customer

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identification information being obtained by reading said customer identification information from said customer card.

4.   A method according to claim 1, said gasoline having a per-unit price, said step of providing said customer with an elected discount, if any, comprising adjusting said per-unit price based on said elected discount, if any.

5.   A method according to claim 1, said determining step comprising converting said first information into a point value, and deriving said accumulated discount information from said point value.

6.   A method according to claim 5, further comprising:

storing accumulated points information in association with said customer identification information; and

determining new accumulated points information each time said first information is converted into a point value, said new accumulated points information being a sum of said point value and said accumulated points information;

wherein said step of deriving said accumulated discount information comprises:

(i) determining a first multiplier by determining the number of times said new accumulated points information is evenly divisible by a predetermined point amount;

(ii) increasing said accumulated discount information by a first amount equal to said first multiplier multiplied by a predetermined discount amount; and

(iii) setting said accumulated points information equal to a value obtained by decreasing said new accumulated points information by a second amount equal to said first multiplier multiplied by said predetermined point amount.

7.   A method according to claim 4, further comprising determining an available discount amount, said available discount amount being the lesser of said per-unit price and said accumulated discount information, wherein said elected discount is based on said available discount amount.

8.   A method according to claim 7, wherein said elected discount, if any, equals said available discount amount.

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9.   A method according to claim 7, further comprising receiving a fractional discount amount from said customer, said fractional discount amount being a fraction of said available discount amount, wherein said elected discount, if any, equals said fractional discount amount.

10.   A method according to claim 9, further comprising decreasing said accumulated discount information by said fractional discount amount after said adjusting step and storing said decreased accumulated discount information in said database in association with said customer identification information.

11.   A method according to claim 8, further comprising decreasing said accumulated discount information by said available discount amount after said adjusting step and storing said decreased accumulated discount information in said database in association with said customer identification information.

12.   A method according to claim 4, further comprising decreasing said accumulated discount information based on an amount by which said per-unit price is adjusted after said adjusting step and storing said decreased accumulated discount information in said database in association with said customer identification information.

13.   A method according to claim 1, said determining step comprising converting said first information into one of a point value and a discount amount, and deriving said accumulated discount information based on said one of a point value and a discount amount.

14.   A method according to claim 1, further comprising providing a discount report to said customer after said storing step, said discount report being based on said accumulated discount information.

15.   A method according to claim 14, wherein said discount report is provided on a receipt.

16.   A method according to claim 1, said one or more predefined actions being one or more of purchasing one or more items from a retail location or website, purchasing a particular item at said retail location or website, completing a predetermined event at said retail location, and presenting a discount containing coupon at said retail location.

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17.   A method according to claim 16, wherein when said one of said one or more predefined actions performed by said customer is purchasing one or more items from a retail location or website, said one or more items having a purchase amount, said first information comprises said purchase amount and said first information is converted into said point value based on a one point for each dollar of said purchase amount basis.

18.   A method according to claim 16, wherein when said one of said one or more predefined actions performed by said customer is purchasing a particular item or brand from a retail location or website, said first information comprises an identification of said particular item or brand and said point value is a corresponding predetermined point value.

19.   A method according to claim 16, wherein when said one of said one or more predefined actions performed by said customer is completing a particular predetermined event at a retail location, said first information comprises an identification of said particular predetermined event and said point value is a corresponding predetermined point value.

20.   A method according to claim 13, wherein when said one of said one or more predefined actions performed by said customer is presenting a discount containing coupon at a retail location, said first information comprises discount information from said coupon and said discount amount is based on said discount information.

21.   A method according to claim 2, said one or more customer identification elements being selected from the group consisting of a customer card, a key fob device, an RFID tag, a credit card, a debit card, a phone number, a social security number, a password, the customer's fingerprint, and the customer's retina.

22.   A system for providing a customer with a discount on the purchase of gasoline, said customer having customer identification information, comprising:

a main server;

a customer database in electronic communication with said main server, said customer database storing accumulated discount information in association with said customer identification information, said accumulated discount

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information being determined each time said customer performs one of one or more predefined actions and said customer identification information is obtained in association with said one of one or more predefined actions , said one of one or more predefined actions having first information related thereto, said accumulated discount information, when determined, being based on said first information;

a computing device located at a gas station location, said computing device being in electronic communication with said main server, said computing device being adapted to access said accumulated discount information from said main server based on said customer identification information when said customer initiates the purchase of gasoline at said gas station location, provide said customer with an ability to elect a discount, if any, based on said accessed accumulated discount information, and provide said customer with an elected discount, if any, on said purchase of gasoline.

23. A system according to claim 22, further comprising a point-of-sale terminal located at a retailer location and a gasoline pump located at said gas station location that is in electronic communication with said computing device located at said gas station location, said customer having one or more customer identification elements each having said customer identification information associated therewith, said point-of-sale terminal having a first reader device for reading one or more of said one or more customer identification elements, said gasoline pump having a second reader device for reading one or more of said one or more customer identification elements, wherein said customer identification information is obtained in association with said one of one or more predefined actions by reading one of said one or more customer identification elements using said first reader device, wherein said customer identification information is obtained when said customer initiates the purchase of gasoline at said gas station location by reading one of said one or more customer identification elements using said second reader device, and wherein said customer identification information is sent to said computing device located at said gas station location.

24. A system according to claim 23, said one or more customer identification elements being a customer card, said customer identification

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information being provided on said customer card in bar code form, said first and second reader devices each comprising a bar code reader.

25. A system according to claim 22, said gasoline having a per-unit price, said computing device being further adapted to adjust said per-unit price based on said elected discount, if any.

26. A system according to claim 22, further comprising a retailer computing device in electronic communication with said main server, said retailer computing device receiving said first information and converting said first information into a point value when said customer performs said one of one or more predefined actions and said customer identification is obtained in association with said one of one or more predefined actions , said accumulated discount information, when determined, being based on said point value.

27. A system according to claim 26, said customer database storing accumulated points information in association with said customer identification information, said retailer computing device being adapted to determine new accumulated points information each time said first information is converted into a point value, said new accumulated points information being a sum of said point value and said accumulated points information, wherein said accumulated discount information is determined by: (i) determining a first multiplier by determining the number of times said new accumulated points information is evenly divisible by a predetermined point amount, and (ii) increasing said accumulated discount information by a first amount equal to said first multiplier multiplied by a predetermined discount amount, and wherein said accumulated points information is set equal to a value obtained by decreasing said new accumulated points information by a second amount equal to said first multiplier multiplied by said predetermined point amount.

28. A system according to claim 27, said accumulated discount information being determined by said main server and said accumulated points information being set by said main server.

29. A system according to claim 25, said computing device located at said gas station location being further adapted to determine an available discount amount, said available discount amount being the lesser of said per-unit price and said

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accumulated discount information, wherein said elected discount, if any, is based on said available discount amount.

30.　A system according to claim 29, wherein said wherein said elected discount, if any, is equal to said available discount amount.

31.　A system according to claim 29, said computing device located at said gas station location being further adapted to receive a fractional discount amount from said customer, said fractional discount amount being a fraction of said available discount amount, wherein said wherein said elected discount, if any, is equal to said fractional discount amount.

31.　A system according to claim 24, wherein said main server is adapted to decrease said accumulated discount information based on an amount by which said per-unit price is adjusted by said computing device located at said gas station location, said decreased accumulated discount information being stored by said customer database in association with said customer identification information.

33.　A system according to claim 22, further comprising a retailer computing device in electronic communication with said main server, said retailer computing device receiving said first information and converting said first information into one of a point value and a discount amount when said customer performs said one of one or more predefined actions and said customer identification element is obtained in association with said one of one or more predefined actions, said accumulated discount information being based on said one of a point value and a discount amount.

34.　A system according to claim 23, said point-of-sale terminal being adapted to provide a discount report to said customer, said discount report being based on said accumulated discount information.

35.　A system according to claim 34, said discount report being a receipt printed by said point-of-sale terminal.

36.　A system according to claim 23, said one or more customer identification elements being selected from the group consisting of a customer card, a key fob device, an RFID tag, a credit card, a debit card, the customer's fingerprint, and the customer's retina.

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37. A method of providing a customer with a discount on the purchase of gasoline, said customer having customer identification information, the method comprising:

determining accumulated discount information each time: (i) said customer performs one of one or more predefined actions, (ii) said customer identification information is received in association with said one of one or more predefined actions, and (iii) first information relating to said one of said one or more predefined actions is received, said accumulated discount information being determined by converting said first information into a point value, and deriving said accumulated discount information from said point value;

storing said accumulated discount information in association with said customer identification information;

obtaining said customer identification information when said customer initiates the purchase of gasoline;

obtaining said accumulated discount information using said customer identification information; and

providing said customer with a discount on said purchase of gasoline based on said accumulated discount information.

38. A method according to claim 37, said customer having one or more customer identification elements each having said customer identification information associated therewith, wherein said customer identification information is received in association with said one of one or more predefined actions as a result of said customer allowing said customer identification element to be obtained using one of said one or more customer identification elements, and wherein said customer identification information is obtained when said customer initiates the purchase of gasoline using one of said one or more customer identification elements.

39. A method according to claim 38, said one or more customer identification elements being a customer card, said customer identification information being provided on said customer card in bar code form, said customer identification information being obtained by reading said customer identification information from said customer card.

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40.   A method according to claim 37, said gasoline having a per-unit price, said providing step comprising adjusting said per-unit price based on said accumulated discount information.

41.   A method according to claim 37, further comprising:

storing accumulated points information in association with said customer identification information; and

determining new accumulated points information each time said first information is converted into a point value, said new accumulated points information being a sum of said point value and said accumulated points information;

wherein said step of deriving said accumulated discount information comprises:

(i) determining a first multiplier by determining the number of times said new accumulated points information is evenly divisible by a predetermined point amount;

(ii) increasing said accumulated discount information by a first amount equal to said first multiplier multiplied by a predetermined discount amount; and

(iii) setting said accumulated points information equal to a value obtained by decreasing said new accumulated points information by a second amount equal to said first multiplier multiplied by said predetermined point amount.

42.   A method according to claim 40, said adjusting step comprising determining an available discount amount, said available discount amount being the lesser of said per-unit price and said accumulated discount information, and reducing said per-unit price based on said available discount amount.

43.   A method according to claim 42, wherein said step of reducing said per-unit price based on said available discount amount comprises reducing said per-unit price by said available discount amount.

44.   A method according to claim 42, wherein said adjusting step further comprises receiving a fractional discount amount from said customer, said fractional discount amount being a fraction of said available discount amount, and reducing said per-unit by said fractional discount amount.

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45.　A method according to claim 44, further comprising decreasing said accumulated discount information by said fractional discount amount after said adjusting step and storing said decreased accumulated discount information in association with said customer identification information.

46.　A method according to claim 43, further comprising decreasing said accumulated discount information by said available discount amount after said adjusting step and storing said decreased accumulated discount information in association with said customer identification information.

47.　A method according to claim 40, further comprising decreasing said accumulated discount information based on an amount by which said per-unit price is adjusted after said adjusting step and storing said decreased accumulated discount information in association with said customer identification information.

48.　A method according to claim 37, said determining step comprising converting said first information into one of a point value and a discount amount, and deriving said accumulated discount information based on said one of a point value and a discount amount.

49.　A method according to claim 37, further comprising providing a discount report to said customer after said storing step, said discount report being based on said accumulated discount information.

50.　A method according to claim 49, wherein said discount report is provided on a receipt.

51.　A method according to claim 37, said one or more predefined actions being one or more of purchasing one or more items from a retail location or website, purchasing a particular item at said retail location or website, completing a predetermined event at said retail location, and presenting a discount containing coupon at said retail location.

52.　A method according to claim 51, wherein when said one of said one or more predefined actions performed by said customer is purchasing one or more items from a retail location or website, said one or more items having a purchase amount, said first information comprises said purchase amount and said first information is converted into said point value based on a one point for each dollar of said purchase amount basis.

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53.   A method according to claim 51, wherein when said one of said one or more predefined actions performed by said customer is purchasing a particular item or brand from a retail location, said first information comprises an identification of said particular item or brand and said point value is a corresponding predetermined point value.

53.   A method according to claim 51, wherein when said one of said one or more predefined actions performed by said customer is completing a particular predetermined event at a retail location, said first information comprises an identification of said particular predetermined event and said point value is a corresponding predetermined point value.

54.   A method according to claim 48, wherein when said one of said one or more predefined actions performed by said customer is presenting a discount containing coupon at a retail location, said first information comprises discount information from said coupon and said discount amount is based on said discount information.

55.   A method according to claim 38, said one or more customer identification elements being selected from the group consisting of a customer card, a key fob device, an RFID tag, a credit card, a debit card, a phone number, a social security number, a password, the customer's fingerprint, and the customer's retina.

56.   A system for providing a customer with a discount on the purchase of gasoline, said customer having customer identification information, comprising:

a main server;

a customer database in electronic communication with said main server, said customer database storing accumulated discount information in association with said customer identification information, said accumulated discount information being determined each time said customer performs one of one or more predefined actions and said customer identification information is obtained in association with said one of one or more predefined actions, said one of one or more predefined actions having first information related thereto, said accumulated discount information, when determined, being determined by converting said first information

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into a point value, and deriving said accumulated discount information from said point value;

a computing device located at a gas station location, said computing device being in electronic communication with said main server, said computing device being adapted to obtain said accumulated discount information from said main server based on said customer identification information when said customer initiates the purchase of gasoline at said gas station location and provide said customer with a discount on said purchase of gasoline based on said accumulated discount information.

57. A system according to claim 56, further comprising a point-of-sale terminal located at a retailer location and a gasoline pump located at said gas station location that is in electronic communication with said computing device located at said gas station location, said customer having one or more customer identification elements each having said customer identification information associated therewith, said point-of-sale terminal having a first reader device for reading one or more of said one or more customer identification elements, said gasoline pump having a second reader device for reading one or more of said one or more customer identification elements, wherein said customer identification information is obtained in association with said one of one or more predefined actions by reading one of said one or more customer identification elements using said first reader device, wherein said customer identification information is obtained when said customer initiates the purchase of gasoline at said gas station location by reading one of said one or more customer identification elements using said second reader device, and wherein said customer identification information is sent to said computing device located at said gas station location.

58. A system according to claim 57, said one or more customer identification elements being a customer card, said customer identification information being provided on said customer card in bar code form, said first and second reader devices each comprising a bar code reader.

59. A system according to claim 56, said gasoline having a per-unit price, said computing device being further adapted to adjust said per-unit price based on said accumulated discount information.

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60.   A system according to claim 56, further comprising a retailer computing device in electronic communication with said main server, said retailer computing device receiving said first information and converting said first information into said point value when said customer performs said one of one or more predefined actions and said customer identification is obtained in association with said one of one or more predefined actions.

61.   A system according to claim 60, said customer database storing accumulated points information in association with said customer identification information, said retailer computing device being adapted to determine new accumulated points information each time said first information is converted into a point value, said new accumulated points information being a sum of said point value and said accumulated points information, wherein said accumulated discount information is determined by: (i) determining a first multiplier by determining the number of times said new accumulated points information is evenly divisible by a predetermined point amount, and (ii) increasing said accumulated discount information by a first amount equal to said first multiplier multiplied by a predetermined discount amount, and wherein said accumulated points information is set equal to a value obtained by decreasing said new accumulated points information by a second amount equal to said first multiplier multiplied by said predetermined point amount.

62.   A system according to claim 61, said accumulated discount information being determined by said main server and said accumulated points information being set by said main server.

63.   A system according to claim 59, said computing device located at said gas station location being further adapted to determine an available discount amount, said available discount amount being the lesser of said per-unit price and said accumulated discount information, and reduce said per-unit price based on said available discount amount.

64.   A system according to claim 63, wherein said per-unit price is reduced by said available discount amount.

65.   A system according to claim 63, said computing device located at said gas station location being further adapted to receive a fractional discount

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amount from said customer, said fractional discount amount being a fraction of said available discount amount, wherein said per-unit price is reduced by said fractional discount amount.
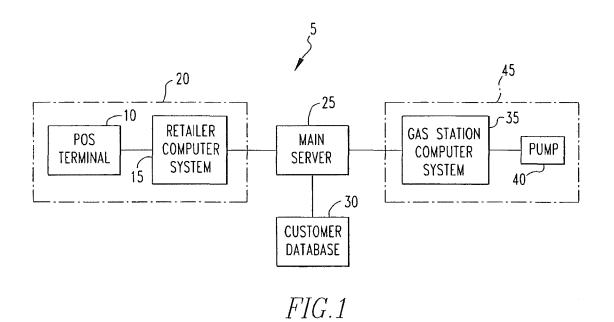
66. A system according to claim 59, wherein said main server is adapted to decrease said accumulated discount information based on an amount by which said per-unit price is adjusted by said computing device located at said gas station location, said decreased accumulated discount information being stored by said customer database in association with said customer identification information.

67. A system according to claim 56, further comprising a retailer computing device in electronic communication with said main server, said retailer computing device receiving said first information and converting said first information into said point value when said customer performs said one of one or more predefined actions and said customer identification element is obtained in association with said one of one or more predefined actions.

68. A system according to claim 57, said point-of-sale terminal being adapted to provide a discount report to said customer, said discount report being based on said accumulated discount information.

69. A system according to claim 68, said discount report being a receipt printed by said point-of-sale terminal.

70. A system according to claim 57, said one or more customer identification elements being selected from the group consisting of a customer card, a key fob device, an RFID tag, a credit card, a debit card, the customer's fingerprint, and the customer's retina.
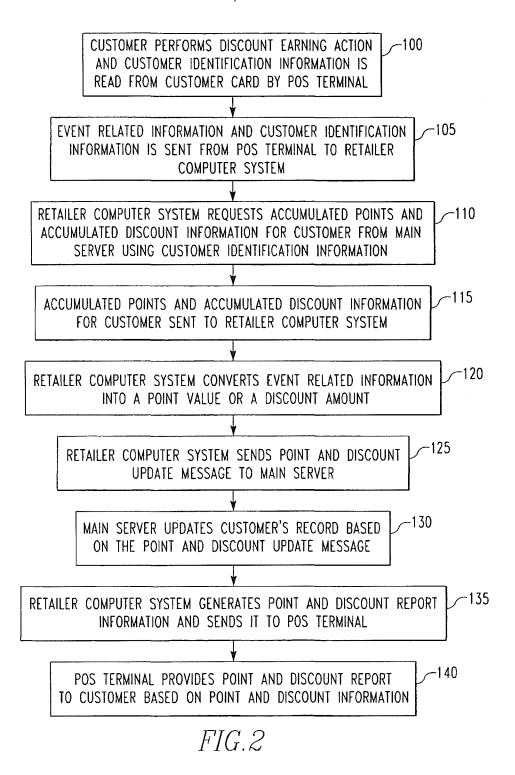
34

ABSTRACT

A method of providing a customer with a gasoline discount including determining accumulated discount information each time: the customer performs a predefined action, customer identification information is obtained, such as by using a customer identification element, and information relating to the performed action is received. The accumulated discount information is based on the information and is stored in association with the customer identification information. When the customer purchases gasoline, the customer identification information is obtained, the accumulated discount information is obtained using the customer identification information, and the customer may receive a discount based on the accumulated discount information. Also, a discount system includes a retailer POS terminal having a reader device, a main server, a customer database connected to the main server that stores the accumulated discount information, a pump having a reader device, and a gas station computing device connected to the pump and the main server.
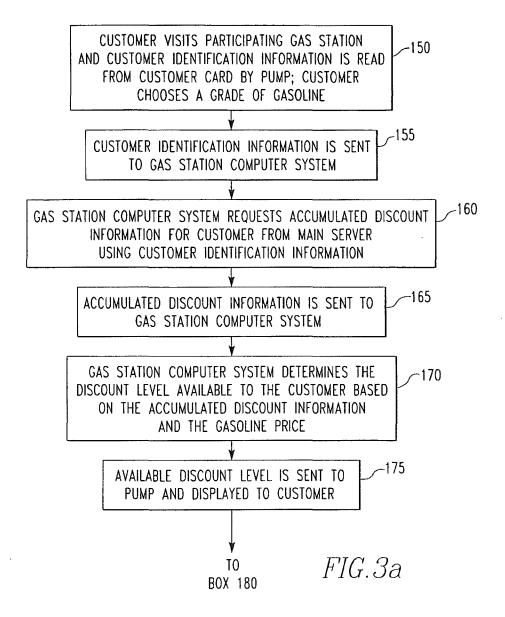
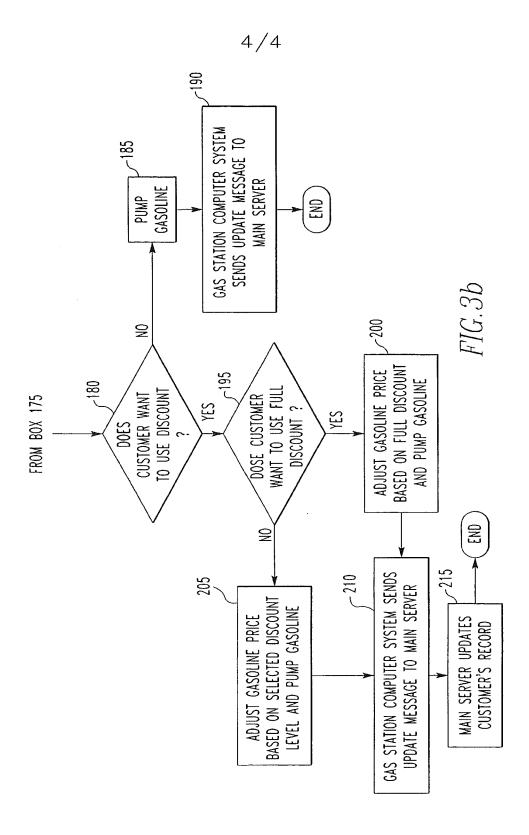076021-00604

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FIG.1

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CUSTOMER PERFORMS DISCOUNT EARNING ACTION
AND CUSTOMER IDENTIFICATION INFORMATION IS
READ FROM CUSTOMER CARD BY POS TERMINAL ——100

↓

EVENT RELATED INFORMATION AND CUSTOMER IDENTIFICATION
INFORMATION IS SENT FROM POS TERMINAL TO RETAILER
COMPUTER SYSTEM ——105

↓

RETAILER COMPUTER SYSTEM REQUESTS ACCUMULATED POINTS AND
ACCUMULATED DISCOUNT INFORMATION FOR CUSTOMER FROM MAIN
SERVER USING CUSTOMER IDENTIFICATION INFORMATION ——110

↓

ACCUMULATED POINTS AND ACCUMULATED DISCOUNT INFORMATION
FOR CUSTOMER SENT TO RETAILER COMPUTER SYSTEM ——115

↓

RETAILER COMPUTER SYSTEM CONVERTS EVENT RELATED INFORMATION
INTO A POINT VALUE OR A DISCOUNT AMOUNT ——120

↓

RETAILER COMPUTER SYSTEM SENDS POINT AND DISCOUNT
UPDATE MESSAGE TO MAIN SERVER ——125

↓

MAIN SERVER UPDATES CUSTOMER'S RECORD BASED
ON THE POINT AND DISCOUNT UPDATE MESSAGE ——130

↓

RETAILER COMPUTER SYSTEM GENERATES POINT AND DISCOUNT REPORT
INFORMATION AND SENDS IT TO POS TERMINAL ——135

↓

POS TERMINAL PROVIDES POINT AND DISCOUNT REPORT
TO CUSTOMER BASED ON POINT AND DISCOUNT INFORMATION ——140

FIG.2

076021-00604

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```
┌──────────────────────────────────────────┐
│  CUSTOMER VISITS PARTICIPATING GAS STATION │
│  AND CUSTOMER IDENTIFICATION INFORMATION IS READ │──150
│  FROM CUSTOMER CARD BY PUMP; CUSTOMER      │
│  CHOOSES A GRADE OF GASOLINE               │
└──────────────────────────────────────────┘
                     │
                     ▼
   ┌────────────────────────────────────────┐
   │  CUSTOMER IDENTIFICATION INFORMATION IS SENT │──155
   │  TO GAS STATION COMPUTER SYSTEM         │
   └────────────────────────────────────────┘
                     │
                     ▼
┌──────────────────────────────────────────────┐
│  GAS STATION COMPUTER SYSTEM REQUESTS ACCUMULATED DISCOUNT │──160
│  INFORMATION FOR CUSTOMER FROM MAIN SERVER   │
│  USING CUSTOMER IDENTIFICATION INFORMATION   │
└──────────────────────────────────────────────┘
                     │
                     ▼
   ┌────────────────────────────────────────┐
   │  ACCUMULATED DISCOUNT INFORMATION IS SENT TO │──165
   │  GAS STATION COMPUTER SYSTEM            │
   └────────────────────────────────────────┘
                     │
                     ▼
  ┌──────────────────────────────────────────┐
  │  GAS STATION COMPUTER SYSTEM DETERMINES THE │──170
  │  DISCOUNT LEVEL AVAILABLE TO THE CUSTOMER BASED │
  │  ON THE ACCUMULATED DISCOUNT INFORMATION │
  │  AND THE GASOLINE PRICE                   │
  └──────────────────────────────────────────┘
                     │
                     ▼
     ┌────────────────────────────────────┐
     │  AVAILABLE DISCOUNT LEVEL IS SENT TO │──175
     │  PUMP AND DISPLAYED TO CUSTOMER     │
     └────────────────────────────────────┘
                     │
                     ▼
                    TO
                 BOX 180            FIG.3a
```

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FIG.3b

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	SYSTEM AND METHOD OF PROVIDING DISCOUNTS ON THE PURCHASE OF GASOLINE

As the below named inventor(s), I/we declare that:

This declaration is directed to:

[✓] The attached application, or

[ ] Application No. _____, filed on _____,

[ ] as amended on _____ (if applicable);

I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought;

I/we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;

I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT International filing date of the continuation-in-part application.

All statements made herein of my/own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.

FULL NAME OF INVENTOR(S)

Inventor one: RUSSELL G. ROSS

Signature: _Russell D. Ross_   Citizen of: United States

Inventor two: REBECCA B. KANE

Signature: _R B Kane_   Citizen of: United States

Inventor three: _____

Signature: _____   Citizen of: _____

Inventor four: _____

Signature: _____   Citizen of: _____

[ ] Additional inventors or a legal representative are being named on _____ additional form(s) attached hereto.

A0079

POWER OF ATTORNEY and CORRESPONDENCE ADDRESS INDICATION FORM	Application Number	
	Filing Date	Filed Herewith
	First Named Inventor	Russell G. Ross
	Title	System and Method of Providing
	Art Unit	
	Examiner Name	
	Attorney Docket Number	076021-00604

I hereby appoint:

[✓] Practitioners associated with the Customer Number: 003705

OR

[ ] Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:

[ ] The address associated with the above-mentioned Customer Number.

OR

[ ] The address associated with Customer Number:

OR

[✓]	Firm or Individual Name	Philip E. Levy				
	Address	Eckert Seamans Cherin & Mellott, LLC				
	Address	600 Grant Street, 44th Floor				
	City	Pittsburgh	State	PA	Zip	15219
	Country	USA				
	Telephone	412.566.6043	Fax	412.566.6099		

I am the:

[✓] Applicant/Inventor.

[ ] Assignee of record of the entire interest. See 37 CFR 3.71.
 Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

SIGNATURE of Applicant or Assignee of Record (if assignee, put name, title and company name in the "Name" space below)

Name	Russell G. Ross	
Signature	*Russell G. Ross*	
Date	October 27, 2004	Telephone 412-963-2531

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

[✓] *Total of ___2___ forms are submitted.

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

POWER OF ATTORNEY and CORRESPONDENCE ADDRESS INDICATION FORM	Application Number	
	Filing Date	Filed Herewith
	First Named Inventor	Russell G. Ross
	Title	System and Method of Providing
	Art Unit	
	Examiner Name	
	Attorney Docket Number	076021-00604

I hereby appoint:

[✓] Practitioners associated with the Customer Number: 003705

OR

[ ] Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:

[ ] The address associated with the above-mentioned Customer Number:

OR

[ ] The address associated with Customer Number:

OR

[✓] Firm or Individual Name	Philip E. Levy				
Address	Eckert Seamans Cherin & Mellott, LLC				
Address	600 Grant Street, 44th Floor				
City	Pittsburgh	State	PA	Zip	15219
Country	USA				
Telephone	412.566.6043	Fax	412.566.6099		

I am the:

[✓] Applicant/Inventor.

[ ] Assignee of record of the entire interest. See 37 CFR 3.71.
    Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

SIGNATURE of Applicant or Assignee of Record (if assignee, put name, title and company name in the "Name" space below)

Name	Rebecca B. Kane
Signature	
Date	October 27, 2004	Telephone	(412) 967-6152

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

[✓] *Total of ___2___ forms are submitted.

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Application Data Sheet

Application Type:	Non-provisional
Subject Matter:	Utility
Title Line 1:	SYSTEM AND METHOD OF
Title Line 2:	PROVIDING DISCOUNTS ON
Title Line 3:	THE PURCHASE OF GASOLINE
Attorney Docket Number:	076021-00604
Total Drawing Sheets:	4
Small Entity:	No

Application Information

Applicant Authority Type:	Inventor
Primary Citizenship Country:	United States of America
Status:	Full Capacity
Given Name:	Russell G.
Family Name:	Ross
City of Residence:	Cranberry Township
State or Province of Residence:	Pennsylvania
Country of Residence:	United States of America
Street of Mailing Address:	117 Windwood Heights Drive
City of Mailing Address:	Cranberry Township
State or Province of Mailing Address:	Pennsylvania
Country of Mailing Address:	United States of America
Postal or Zip Code of Mailing Address:	16066

Applicant Authority Type:	Inventor
Primary Citizenship Country:	United States of America
Status:	Full Capacity
Given Name:	Rebecca B.
Family Name:	Kane
City of Residence:	Upper St. Clair
State or Province of Residence:	Pennsylvania
Country of Residence:	United States of America
Street of Mailing Address:	386 Oaklawn Drive
City of Mailing Address:	Upper St. Clair
State or Province of Mailing Address:	Pennsylvania

1

Country of Mailing Address: United States of America

Postal or Zip Code of Mailing Address: 15241

Representative Information

Representative Designation::	Registration Number::	Representative Name::
Primary	40,700	Philip E. Levy

2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

RUSSELL G. ROSS et al.

Filed Herewith

: SYSTEM AND METHOD OF PROVIDING
: DISCOUNTS ON THE PURCHASE OF
: GASOLINE
:
:
: Attorney Docket No.: 076021-00604

INFORMATION DISCLOSURE STATEMENT

October 28, 2004

Commissioner for Patents
P.O. Box 1451
Alexandria, VA 22313-1451

Dear Sir:

Pursuant to the provisions of 37 C.F.R. Sections 1.56, 1.97 and 1.98, Applicant identifies the patents listed on the attached Patent and Trademark Office Form PTO/SB/08A for consideration during prosecution of the subject patent application. Copies of each cited U.S. patent are not enclosed herewith. *See* Pre-OG Notice "Information Disclosure Statements May Be Filed Without Copies of U.S. Patents and Published Applications in Patent Applications filed after June 30, 2003 (signed 11 July 2003)".

Additional background information is discussed in the specification under the heading "Background Information."

This Statement is filed solely for the purpose of complying with the pertinent rules of the Office and is not intended to be a substitute for an independent evaluation by the examiner of the art cited or an independent search by the examiner, and no representation of any nature is made or intended by the filing of this Statement.

In addition to the art cited on form PTO/SB/08A, Applicant and/or their attorneys may have been exposed to or considered additional art relating to the general class of the subject matter of the invention. However, if in fact such exposure or consideration has

A0084

076021-00604

occurred, to the best of their recall or judgment, none of such art is prior art which is more relevant than the art cited.

Respectfully submitted,

Philip E. Levy
Reg. No. 40,700
Eckert Seamans Cherin & Mellott, LLC
600 Grant Street, 44th Floor
Pittsburgh, PA 15219

(412) 566-6043   Attorney for Applicants

- 2 -

Substitute for form 1449/PTO	**Complete if Known**	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT *(Use as many sheets as necessary)*	Application Number	
	Filing Date	Filed Herewith
	First Named Inventor	Russell G. Ross
	Art Unit	
	Examiner Name	
Sheet [ ] of [ ]	Attorney Docket Number	076021-00604

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A	US- 6,112,981	09/05/2000	McCall	
	B	US- 6,321,984	11/27/2001	McCall et al.	
	C	US- 6,332,128	12/18/2001	Nicholson	
		US-			
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		US-			
		US-			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] Number[4] Kind Code[5] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T[6]

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional). [2] See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	076021-00604
First Inventor	RUSSELL G. ROSS
Title	System and Method of Providing Discounts on the *
Express Mail Label No.	EV 207370814 US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO: Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

1. [✓] **Fee Transmittal Form** (e.g., PTO/SB/17)
   (Submit an original and a duplicate for fee processing)
2. [ ] **Applicant claims small entity status.**
   See 37 CFR 1.27.
3. [✓] **Specification** [Total Pages___34___]
   Both the claims and abstract must start on a new page
   (For information on the preferred arrangement, see MPEP 608.01(a))
4. [✓] **Drawing(s)** *(35 U.S.C. 113)* [Total Sheets ___4___]

5. **Oath or Declaration** [Total Sheets ___1___]
   a. [✓] Newly executed (original or copy)
   b. [ ] A copy from a prior application (37 CFR 1.63(d))
      (for continuation/divisional with Box 18 completed)
      i. [ ] **DELETION OF INVENTOR(S)**
         Signed statement attached deleting inventor(s)
         name in the prior application, see 37 CFR
         1.63(d)(2) and 1.33(b).

6. [✓] **Application Data Sheet.** See 37 CFR 1.76
7. [ ] **CD-ROM or CD-R** in duplicate, large table or
   Computer Program *(Appendix)*
   [ ] Landscape Table on CD

8. **Nucleotide and/or Amino Acid Sequence Submission**
   (if applicable, items a. – c. are required)
   a. [ ] Computer Readable Form (CRF)
   b. Specification Sequence Listing on:
      i. [ ] CD-ROM or CD-R (2 copies); or
      ii. [ ] Paper
   c. [ ] Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. [ ] **Assignment Papers** (cover sheet & document(s))

   Name of Assignee_____

   _____

10. [ ] **37 CFR 3.73(b) Statement**   [✓] **Power of**
    (when there is an assignee)   **Attorney**

11. [ ] **English Translation Document** *(if applicable)*

12. [✓] **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
    [ ] Copies of citations attached

13. [ ] **Preliminary Amendment**

14. [✓] **Return Receipt Postcard** (MPEP 503)
    (Should be specifically itemized)

15. [ ] **Certified Copy of Priority Document(s)**
    (if foreign priority is claimed)

16. [✓] **Nonpublication Request** under 35 U.S.C. 122(b)(2)(B)(i).
    Applicant must attach form PTO/SB/35 or equivalent.

17. [ ] **Other:**_____

18. If a CONTINUING APPLICATION, *check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:*

[ ] Continuation   [ ] Divisional   [ ] Continuation-in-part (CIP)   of prior application No.: ....

Prior application information: Examiner_____   Art Unit: _____

19. CORRESPONDENCE ADDRESS

[✓] The address associated with Customer Number: | 003705 | OR [✓] Correspondence address below

Name	Philip E. Levy
Address	Eckert Seamans Cherin & Mellott, LLC 600 Grant Street, 44th Floor

City	Pittsburgh	State	PA	Zip Code	15219
Country	USA	Telephone	412.566.6043	Fax	412.566.6099

Signature	[signature]	Date	October 28, 2004
Name (Print/Type)	Philip E. Levy	Registration No. (Attorney/Agent)	40,700

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/975,277	10/28/2004	Russell G. Ross	076021-00604	6022

3705   7590   06/18/2007
ECKERT SEAMANS CHERIN & MELLOTT
600 GRANT STREET
44TH FLOOR
PITTSBURGH, PA 15219

EXAMINER
JANVIER, JEAN D

ART UNIT	PAPER NUMBER
3622	

MAIL DATE	DELIVERY MODE
06/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/975,277	ROSS ET AL.
	Examiner	Art Unit	
	Jean Janvier	3622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-4,7-12,14-16,20-25,29-32 and 34-36* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-4, 7-12, 14-16, 20-25, 29-32 and 34-36* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

U.S. Patent and Trademark Office
PTOL-326 (Rev. 08-06)   Office Action Summary   Part of Paper No./Mail Date 20070611

Application/Control Number: 10/975,277   Page 2
Art Unit: 3622

Response To Applicant's Arguments

First of all, the Examiner clearly points out in the last Office Action that the prior art of

record does not enable an identified customer to interact during the course of a transaction or fuel

purchase with a database system by choosing on a fuel dispenser screen to redeem or not to

redeem a portion of his stored accumulated discounts/points and the Applicant seems to agree

with the admission. However, the Examiner submits that, **it is common practice in the art to**

allow a user to access or view, online or offline or during a transaction, accumulated

discount information or accumulated points (discount level) stored in a database under the

user's account. For instance, a user is permitted to access or view his accumulated points

stored in a database under his name or account during an online transaction at a

participating retailer and wherein the user may choose to redeem his accumulated points

displayed on a screen or a portion or a fraction thereof (See at least the Ikeda's reference

featured in the conclusion section, especially embodiments of figs. 13 and 14). Although the

Applicant, as seen on page 7 of the 1.111 response, seems to agree with the Examiner's

assertion, however, the Applicant turns around and labels it irrelevant by proceeding to spell out

what he considers to be proper here. The Examiner completely and respectfully disagrees with

the Applicant's findings. What is at stakes here is whether or not it is common practice in the art

for a customer during an online or off-line transaction, including by the way a gasoline purchase,

to view his accumulated discounts/points stored in a system database and to choose to redeem or

not to redeem a portion thereof and whether or not an ordinary skilled artisan would have been

motivated, at the time the present Application was filed, to combine the well known disclosure

with the prior art of record (i.e. the McCall's or Nicholson's Patent) and thereby arrive at the

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claimed invention as featured herein. And the answer to the above question is "Yes". First, the

first part of the question was answered as supported at least by the Ikeda's Patent cited in the

conclusion section and the Applicant implicitly agrees with that assertion. Thus, the Examiner

has supported the assertion made here under the "Official Notice" in addition to the fact that the

Applicant implicitly agrees with it. Second, the Examiner has provided a motivation to combine

based on general knowledge commonly available to those of ordinary skills in the art. Having

said that, the Examiner has herein established a prima facie case of obviousness as required.

Second of all, it appears now that the Applicant wants to question the Examiner's

position that the Applicant seems to support in the first place, as featured on page 7 and second

paragraph of his response, by challenging the Ikeda's reference. To this end, the Applicant

should review, for example, his own disclosure as shown on page 9 and second paragraph.

Moreover, the decision to enable the customer, during a transaction, to review his accumulated

points **before he purchases an item or after he purchases the item** is a matter of desires,

which does not directly impact the functionality of the system. The Applicant also admits "it may

be common practice to enable a customer in an award system to be able to request and review his

total accumulated points online" (page 7, second paragraph). That admission by itself, without

the Ikeda's reference, can be combined with either prior art to arrive at the claimed invention, as

one skilled in the art would have concluded at the time of the invention. Once again, what is

missing from the prior art of record is the fact that it does enable a customer to interact with his

stored points and the Examiner has successfully compensated for that deficiency, as an ordinary

skilled artisan would have herein concluded.

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Therefore, the Applicant's request for allowance or withdrawal of the last Office Action

has been fully considered and respectfully denied in view of the foregoing response since the

Applicant's arguments as herein presented are not plausible and thus, the last Office Action, as

shown below, is hereby maintained and the current **Office Action has been made Final.**

DETAILED ACTION

Specification

Status of the Claims

Claims 1-36 are pending in the Application. Further, claims 5, 6, 13, 17-19, 26-28 and 33

are herein being withdrawn from further prosecution and claims 37-71 are being canceled. Thus,

claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 are herein being examined.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived
> by the manner in which the invention was made.

Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 are rejected under 35 U.S.C. 103(a)

as being unpatentable over **McCall, US Patent 6,321,984B1.**

(In the following action, allowing the customer to redeem a portion of his

accumulated discount stored in a database reads on allowing the customer to elect a

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**discount or a portion of the stored accumulated discounts and providing the elected
discount or redeeming the portion of the discounts, if any, applicable on the price-per-unit
or price-per-gallon of gasoline).**

As per claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36, McCall discloses an integrated

customer reward processing system and fuel dispensing apparatus to allow a retailer to authorize

fuel to be dispensed at a discounted unit price in accordance with a customer's achievement of.

predefined purchasing criteria (or **based on one or more predetermined actions**- i.e. the

customer's purchase of a quantity of promo or cross-marketed products exceeds a preset

threshold or the customer's spending exceeds a predefined dollar threshold amount). More

particularly, a data processing system is provided that implements customer rewards and

includes a database that creates and maintains records associated with customers that make

purchases at an associated store. The reward system will track the customer purchases and

compare them with predefined criteria to determine when a fuel discount is to be provided. These

predefined criteria may include whether the customer purchased items from a group of

designated products (e.g. promotional items) <u>exceeded a quantity threshold,</u> a dollar value

<u>threshold,</u> purchases made on specific dates, or the like (determining accumulated discounts for

an identified customer based on one or more predetermined actions). When a customer meets

one of the predefined criteria, the reward system will authorize a fuel discount (at a participating

gas station facility) and provide the customer with a mechanism, such as a bar code printed

receipt (printed coupon), **a magnetic stripe card (bar coded card)**, an authorization code or the

like, to obtain the fuel at a discount unit price at the participating gas station.

In general, McCall discloses a system for customer promotion wherein an identified

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customer may receive a discount on the price per gallon of gasoline if the customer's purchase,

during a single transaction or during a certain period **exceeds a predefined quantity or a dollar**

threshold amount (Volume purchase condition or predetermined action- See abstract; figs. 9-

10. Col. 9: 52 to Col. 10: 37).

    (See abstract; col. 2: 21-67; fig. 9).

Further, FIG. 9, showing a transaction matrix or table, is a more detailed view of a

plurality of fields that may be included in a typical record 208 corresponding to a particular

customer (e.g. A. Smith). As shown in field 300 of FIG. 9, the customer name is provided along

with an identification number. For new customers, or when the system is first installed, a record

will be created when the first item is purchased at retailer's POS 200. The date of purchase when

at least one item was purchased at POS 200 of an associated retailer is provided in field 302. The

dollar value of the purchases is listed in field 304. Here, retailers may often designate various

items to trigger discounts related to competing or related items. The quantity of these designated

or trigger items that were purchased on each date (if any) are provided in field 306. Field 308 is

the total quantity of items purchased by a certain customer on a specific date. This field, along

with field 304 can be used as a criterion for determining customer loyalty. Field 310 will include

data representing the availability of a fuel discount when a preset threshold (quantity of items or

a dollar amount) is exceeding. The record will be updated in field 312 when a discount is

provided (field 314), via a printed receipt or coupon, and actually used or redeemed by a

customer. Fields 316, 318 and 320 provide totals for the dollar value fields 304, designated items

purchased 306 and total quantity 308, respectively (col. 9: 23 to col. 10: 37).

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In addition, at step 404 of fig. 10, a determination is made as to whether the current

purchases will cause a fuel discount to be offered. This step may include determining if the

customer has purchased certain designated items that will trigger a discount, **whether a total**

dollar value spent exceeds a predefined threshold **and/or if a total quantity of items** exceeds

a threshold. If at step 404, it is determined that a fuel discount is available, then at step 405 the

server authorizes the discount and sends a signal to the market POS termination 200. At step 406,

a bar coded discount coupon (printed coupon), alphanumeric authorization code, updated

magnetic card or other mechanism is provided to the customer. At step 407, server 204

sends an authorization signal to PIB 216, which then provides corresponding commands to

controller 26 in pump 112. The signal from server 204 will include an authorization code and a

discount amount. The customer then inputs the fuel discount authorization code from POS 200 at

pump 112 in step 408. More particularly, the customer **may swipe a magnetic card or** scan in a

bar code from a receipt (printed coupon) **(having encoded thereon accumulated discount**

information such as $0. 10 per gallon plus $0.15 per gallon, which yield to a total of $0.25

(accumulated discount) per gallon as shown in the discount amount field 314 of fig. 9; col.

10: 13-31) or key in an alphanumeric code at I/O 212 of pump 112 (at a participating gas

station). After the customer authorization code is entered the process then compares (step 408a)

the authorization code from server 204 with the code from the customer and if a match exists

then proceeds to step 409 and adjusts the price of the fuel to be dispensed for this transaction

(redemption process) in accordance with the discount information. At step 410, pump controller

26 notifies gas station POS 34 of the adjusted fuel price such that the fuel sales records will be in

order and to ensure that the customer is correctly charged the discounted fuel price based on the

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price-per-unit or PPU or price-per-gallon or PPG discount. Next, at step 411 pump controller 26

notifies server 204 of completion of the transaction for discounted fuel and re-adjusts the fuel

price to its normal level by mapping the discount amount to zero (reset the price-per-gallon on

the fuel pump screen or display to its street or normal price at the conclusion of the redemption

process). Server 204 then updates the customer record 208 in database 206, **storing the**

customer's records and discount information, to reflect that the discount was used.

Additionally, the purchase of fuel at full price could also be used to trigger discounts on

items in the retail store having POS 200. For example, when a customer purchases fuel a signal

can be sent from controller 26 to PIB 216 to server 204, which then updates and analyzes the

customer's record (or creates a record if none exists). **If the customer has purchased fuel in**

excess of a predetermined value (dollar threshold exceeding) or quantity (gallons)

threshold, then a signal can be sent from server 204 back to controller 26 via PIB 216 of fig.

8 to authorize a discount for this customer on merchandise to be purchased at a

participating store In other words, a bar coded receipt (coupon) can be printed by printer

214 that the customer can then take to the participating store and redeem for a discount on

one or more items purchased at a POS 200. When purchased, a signal will be sent to server

204 of fig. 8 and the customer record will be updated accordingly.

Finally, McCall teaches a fuel dispenser 12 of fig 1 having conventional graphics

displays 20a, 20b and a reader device 22 embodying features of the present system. The graphics

displays 20a and 20b each includes a large, conventional, LCD panel for showing text and

numerals, such as a price 24 that corresponds to an amount of fuel dispensed, or other customer-

related messages (col. 3: 48-54).

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(Receiving a signal from a POS indicating that an identified customer is conducting a

transaction and decide whether or not the customer's purchase has exceeded a preset threshold

value, then sending a signal to a printing device to print a coupon for the customer. If no

threshold is achieved during this transaction, then the customer's purchase data are recorded and

accumulated over a certain period of time to decide in the next transaction if it is time to reward

a customer. The process of displaying a threshold exceeding and other information on a screen or

GUI is shown in fig. 9. The step of calculating a subtotal and compare it to the customer's

purchase amount or transaction value to thereby determine if it is time to reward the customer is

implicitly taught in the reference).

   (Figs. 8-10; col. 8: 5 to col. 12: 25)

   As per claims 1, 4, 9, 22, 25 and 31, although McCall discloses displaying transaction

information, such as a price-per-gallon of gasoline and other textual messages, on a fuel

dispenser screen to a user during a transaction at a gas station, however, McCall does not

expressly teach presenting to the user, during the fuel transaction, the accumulated discount

information (discount level) and receiving, in response, the user's choice or election to redeem or

not to redeem at least a portion or a fraction of the presented accumulated discount or a price-

per-unit discount.

   However, it is common practice in the art to allow a user to access or view, online or

offline or during a transaction, accumulated discount information or accumulated points

(discount level) stored in a database under the user's account. For instance, a user is permitted to

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access or view his accumulated points stored in a database under his name or account during an

online transaction at a participating retailer and wherein the user may choose to redeem his

accumulated points displayed on a screen or a portion or a fraction thereof (See at least the

Ikeda's reference featured in the conclusion section).

    ("Official Notice")

    Thus, an ordinary skilled artisan would have been motivated at the time of the invention

to incorporate the above disclosure into the McCall's system so as to present or display to a user

on either display 20a or 20b, coupled to the fuel dispenser 12, during a gasoline transaction at a

participating retailer the user's accumulated discount data or accumulated points or a specific or

accumulated price-per-gallon (PPG or PPU) discount on gasoline ($0.10+$0.15=$0.25 as show

in fig. 9), stored in a database under the user's account, and to allow the user to elect or choose in

real-time, if desired, to use or redeem a portion/fraction of the displayed accumulated discount or

simply to allow the user to use a specific PPG discount ($0.10/GAL) and wherein the value of

the fuel transaction is impacted by the user's choice or election to use or not to redeem a portion

of the displayed accumulated discount or accumulated price-per-gallon discount, thereby making

the system more flexible and interactive by enabling the user to view and access his accumulated

discount or accumulated price-per-gallon (PPG) discount ($0.10+$0.15=$0.25 as show in fig. 9),

stored in a database under his account, displayed on a fuel dispenser screen at a POS or gas

station upon receiving an input from the user during a transaction before the user makes a

purchase or dispenses fuel, which may be discounted based on the user's decision to redeem or

not to redeem a portion of the displayed accumulated discount or a PPG discount ($0.10/GAL as

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featured in fig.9), while rendering the system more appealing and user-friendly to the user who

now can decide in real-time and an interactive manner to partially or fully redeem the total

accumulated discount or accumulated PPG discount ($0.10+$0.15=$0.25 as show in fig. 9) as

presented on the screen during the transaction and wherein the user's account (account balance)

is updated in the database to reflect the transaction including any redemption thereof.

Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 are rejected under are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson, US Patent 6,332,128B1.

(In the following action, allowing the customer to redeem a portion of his accumulated discount stored in a database reads on allowing the customer to elect a discount or a portion of the stored accumulated discounts and providing the elected discount or redeeming the portion of the discounts, if any, applicable on the price-per-unit or price-per-gallon of gasoline).

As per claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36, Nicholson discloses a method

and a system for providing multiple level price-per-unit (PPU) discounts on gasoline to a

customer who purchases at least one cross-marketed product (predetermined action). The

customer is awarded a first PPU discount on the gasoline based on a purchase by the customer of

a first cross-marketed product (a first predetermined action) and is awarded a second PPU

discount based on the purchase of a second cross-marketed product (a second predetermined

action). The first discount is then added to the second discount to determine a total accumulated

PPU discount on gasoline available at a participating retailer and a frequent shopper's card or a

paper receipt is provided to the customer with a customer identification and a transaction

identification encoded in a bar code thereon. The total accumulated discount is stored in a

discounts issued database. The customer then scans the encoded bar code, printed on the receipt,

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with a bar code scanner or swipe the shopper's card at a gasoline dispenser to redeem the total

accumulated discounts or a portion thereof. The total discount is retrieved from the remote

discounts issued database by the gas station or fuel dispenser system and the gasoline station

then reduces the price-per-unit-volume of the gasoline by an amount less than or equal to the

total accumulated discount in the issue database. When the customer completes the gasoline

purchase, a value of the total discount redeemed is determined and stored in a discounts

redeemed database. Portions of the discount redeemed are then allocated to vendors of the first

and second cross-marketed products according to predetermined criteria (according to one or

more predetermined actions).

In general Nicholson discloses a method and a system for providing multiple level

discounts on the price-per-unit (PPU) of a consumable good sold in multiple units to a

customer who purchases a plurality of cross-marketed products comprising the steps of

awarding a first discount on the PPU of the consumable good or fuel to the identified

customer in response to a purchase by the customer of a first cross-marketed or cross-

selling non-fuel product, awarding a second discount on the PPU of the consumable good

or fuel to the customer in response to the purchase by the customer of a second cross-

marketed non-fuel product, adding the first discount to the second discount to determine a

total _accumulated_ discount on the PPU of the consumable good or fuel, storing the total

accumulated discount data in a database for later retrieval/validation and awarding the

total discount to the customer, wherein the process of awarding the total accumulated

discounts to the identified customer includes providing the total accumulated discounts to

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the said customer in the form of electronic coupon via a plurality of mechanisms, having

the total accumulated discount data encoded thereon, consisting of:

a paper receipt with the unique customer identification and discount identification

encoded in a bar code imprinted thereon;

a paper receipt with the unique customer identification and discount identification

encoded in a code number imprinted thereon;

a frequent shopper card with the unique customer identification and discount

identification magnetically encoded thereon;

a prepaid card with the unique customer identification and discount identification

magnetically encoded thereon;

a credit card with the unique customer identification and discount identification

magnetically encoded thereon;

a radio frequency identification (RFID) device with the unique customer identification

and discount identification encoded in a RF transmission; and

a smart card.

The identified customer takes at least one of the mechanism, having the accumulated

discount information encoded thereon, to a participating gas station for redemption, wherein the

gas station system establishes a remote connection with the database to validate the discount

data.

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      Further, Nicholson teaches a controller that sends a set discount message 29 of fig. 1 to the dispenser and includes instructions to adjust the <u>displayed</u> price per gallon by the amount of the total PPU discount, and to set the maximum limit on the number of gallons that can be purchased at the discounted price. Alternatively, a maximum discount value can be set. **If the calculated total PPU discount is** greater than the PPU <u>displayed</u> on the gasoline dispenser, the controller sets the <u>displayed</u> PPU price to zero (0). On dispensers that will not <u>display</u> a PPU price of zero, **the lowest price, which the dispenser will <u>display</u> is shown to the customer** (Col. 6: 37-49). Additionally, it is determined, at step 46 of fig. 3A, whether or not the calculated total PPU discount is greater than the PPU <u>displayed</u> on the gasoline dispenser. If not, the method moves to step 47 and subtracts the total PPU discount from the <u>displayed</u> PPU and then <u>displays</u> a new discounted PPU on the dispenser screen at 48 **where it is viewed by the customer.** However, if the calculated new discounted PPU is less than or equal to zero, the discounted PPU is then set to zero (0) at 47 and is <u>displayed</u> on the dispenser **screen to the customer.** If the PPU is not zero at 48, the method moves to step 49 where the <u>display</u> instructs the customer to enter payment, which may be a credit card or dollar bills. If the PPU is zero, the method moves directly to step 50 where the customer's record is locked, and a timer is started at 51. The method then moves to FIG. 3B, step 55 (Col. 7: 22-35).

      In short Nicholson discloses displaying to the customer on the fuel dispenser display, during a fuel transaction, discount information related to the PPU discount applied to the current fuel transaction and the maximum number of gallons of gasoline that can be purchased at the displayed PPU discount.

      (See claims 1 and 5 of the current reference)

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See abstract; col. 2: 40 to col.3: 31.

As per claims 1, 4, 9, 22, 25 and 31, although Nicholson discloses displaying discount information, such as the street price-per-gallon of gasoline, the customer's unique PPU discount based on the grade of fuel selected by the customer, the number of gallons of gasoline that can be dispensed at the currently displayed unique PPU discount and other relevant textual messages, on the fuel dispenser screen to the customer or user during a transaction at a gas station upon receiving an input from the customer or upon detecting the presence of the identified customer at the pump (fig. 3A blocks 41 and 42), however, Nicholson does not immediately teach enabling the user or customer, during the fuel transaction, to choose or elect to redeem or not to redeem at least a portion or a fraction of the presented accumulated discount or total price-per-unit (PPU) discount in response to the display.

However, it is common practice in the art to allow a user to access or view, online or offline or during a transaction, accumulated discount information or accumulated points (discount level) stored in a database under the user's account. For instance, a user is permitted to access or view his accumulated points stored in a database under his name or account during an online transaction at a participating retailer and wherein the user may choose to redeem his accumulated points displayed on a screen or a portion or a fraction thereof (See at least the Ikeda's reference featured in the conclusion section).

("Official Notice")

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Thus, an ordinary skilled artisan would have been motivated at the time of the invention

to incorporate the above disclosure into the Nicholson's system so as to enable the user or

customer, during the fuel transaction, to choose or elect to redeem or not to redeem at least a

portion or a fraction of the accumulated discount or total price-per-unit (PPU) discount and/or a

subset of the number of gallons of gasoline that can be dispensed at the currently calculated PPU

displayed on the fuel dispenser screen upon receiving an input from the identified customer,

wherein the value of the fuel transaction is impacted by the user's choice or election to use or not

to redeem a portion of the displayed accumulated discount or accumulated price-per-gallon

discount, thereby making the system more flexible and more interactive by enabling the user to

view and access his accumulated discount or calculated total price-per-gallon (PPU) discount

displayed on the fuel dispenser screen at the POS or gas station upon receiving an input from the

user during a transaction before the user makes a purchase or dispenses fuel, which may be

discounted based on the user's decision to redeem or not to redeem a portion of the displayed

accumulated discount or total PPU discount and/or a subset of the number of gallons of gasoline

that can be dispensed at the currently calculated PPU, while rendering the system more appealing

and user-friendly to the user who now can decide in real-time and an interactive manner to

partially or fully redeem the total accumulated discount or accumulated PPU discount and/or a

subset of the number of gallons of gasoline that can be dispensed at the currently calculated PPU

as presented on the screen during the transaction and wherein the user's account (account

balance) is updated in the database to reflect the transaction including any redemption and/or

residual discount thereof.

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Conclusion

Although the following references were not used in the Office Action, they were highly

considered by the Examiner. Applicants are further directed to consult these references.

USP 6,152,591A to McCall discloses a system for providing a fuel dispenser with a

graphics interface. The system easily retrofits onto an existing, conventional fuel dispenser. The

system likewise allows a customer to interact with commercials/advertisements as well as the

instructional interface. The system includes a video display terminal, a touch screen, a

multimedia controller, and a pump interface. A conventional fuel dispenser may be readily

retrofitted with the system because the multimedia controller and pump interface communicate

with a customer-activated terminal already on the conventional fuel dispenser. The system also

operates in a manner to determine if the customer has used the fuel dispenser before, and if not,

displays additional instructions and videos to explain operation of the fuel dispenser. The system

also allows the customer to select between different categories of commercials in order to

purchase amenities. Furthermore, the system provides a manner in which to reward the customer

for such things as frequent purchases and to include all of the purchases on a single receipt.

US Patent 6, 142, 371A to Omeda discloses a customer service system having a point

value and discount rate.

US Patent 5, 537, 314 to Kanter discloses referral recognition system having a point and

discount conversion tables.

US Patent 6,003, 013 to Boushy discloses a casino incentive reward program for

providing reward points to a player utilizing casino game machines via a network.

US Patent US 6,741,968B2.to Jacoves discloses, among other things, a method of and a

system for processing a customer's transaction at a POS and for issuing a discount on the price-per-gallon (PPU) of gasoline to the customer for purchasing a threshold or a certain quantity of triggering or promo products or items during a transaction. Indeed, transaction information is processed through a clearinghouse wherein a rewards provider (2402) assembles the reward program information and forwards it to a store chain central office (2404) for implementation. The store chain central office (2404) then transmits information to one or more of its stores (2406). The store (2406) provides a reward to a customer (2408) based upon the purchase of discounted triggering items. Upon meeting the requirements for redeeming a reward, the customer (2408) redeems the reward at a gas station (2410) for gasoline. Redemption information received by the central office (2404) in the form of electronic files and redemption slips are then sent to the clearinghouse (2412) for processing. The clearinghouse (2412), receiving the information on a daily basis as bundled sums, processes the redemption information by invoicing respective manufacturers (2416) for products sold, and making payment to the stores (2406) of fig. 24 for the costs of the discount triggering items which were sold. See abstract; figs. 1 and 24.

US Patent 5,937,391A to Ikeda discloses a point-service system (incentive reward program) for issuing points to a customer for purchases made at various stores or shops within an online shopping mall (first reward program) comprising a points issuing unit 1 of fig. 1 for issuing points based on purchase amounts of he customer or participant (col. 3: 52-53), a points management unit 2 of fig. 2 for storing the points (total points or base points) accumulated by the customer and a points redeeming unit 3 of fig. 1 for reducing a purchase amount of the customer upon redeeming points at any participating store within the mall. This system shortens the time

from issuing points to redeeming points. In one embodiment, Ikeda discloses a service system

wherein a specific or registered customer makes a request to buy goods (participant's action)

from a home page of an online shopping mall and in response to this request, the service system

causes the number of effective points (base points) accumulated by the customer and issued by a

plurality of shops for each purchase made at each respective shop to be displayed on the

customer's terminal or participant's unit, subsequent to identifying the customer or participant

using the customer's or participant's ID, by referring to the data of each shop forming part of the

online shopping mall. If the customer still decides to order a product (participant's action), he

can click on a shopping button associated with one of the displayed shops to subsequently access

an order button and. hence, the point-service system or service system linked to a web server of

the online shopping mall is activated to issue points or redeem points at the customer's request or

instructions when he inputs an order (see abstract; col. 2: 10-67; figs. 1-19). It is to be understood

that a customer can explicitly or implicitly make a request from the point-service system to buy a

product from a participating shop, redeem points or simply query the point-service system

database for the effective points (base points) accumulated to date (col. 5: 22-38; col. 4: 34-40;

col. 10: 55 to col. 11: 3).

Moreover, the points issuing unit issues points based on the purchase amount of a

customer or participant at an online shopping mall. The point issuing unit issues points based

upon, for example, input information such as the name of the shop and the purchase amount and

the points issue ratio set for each shop. For example, the points issue ratio is indicative of how

many points are issued when a customer or participant spends 100 Yen at a shop (1 point for

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every 100 Yen spent). The points issue ratio can also be set to a value larger than a normal value

in a special campaign period such as an end-of-year sales period (col. 2: 28-37).

In addition, a points redeeming ratio performs a points redeeming process by reducing the

purchase amount for a particular customer or participant during a transaction at a specific shop,

based on the number of total points (base points or effective points) accumulated thus far

throughout the system or at that shop, wherein the customer or participant chooses to redeem

some of his points (base points) at the specific shop and wherein each participating shop has a

different points redeeming ratio (providing a second reward program that assigns a redemption

rate for a customer's transaction based on the redemption points ratio available at the shop,

wherein the customer's program points are functions of the effective or base points issued and

the redemption points ratio set for the shop). For example, shop A of fig. 9 reduces during a

certain period of time the customer's purchase by 1 Yen for every 1 point redeemed, hence a 1:1

ratio or redemption rate. Like the points issue ratio, the points redeeming ratio or redemption rate

for a specific period, such as an end-of-year sales campaign, can be set to a value higher than a

normal period (increasing or adjusting or providing a higher redemption points ratio or

redemption rate to the customer if the customer performs an action such as purchasing products

at a shop participating in the end-of-year sales campaign). For instance, 10, 000- 2 indicates that

the points issue ratio will double when the number of accumulated points reaches 10,000 points

(2 points for every 100 Yen spent upon reaching 10, 000 effective or base points). Further, the

point redemption ratio or rate for shop F, during a specific period of time, doubles that of the

other shops, thus a 2:1 ratio (2 Yen for every 1 point redeemed) (col. 2: 38-64: col. 3: 62-67; col.

8: 1-23; col. 9: 55 to col. 10: 2). In other words, each specific shop issues points to a customer or

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redeems the customer's effective points (base points) during a purchase transaction in
accordance with the points issue ratio and points redemption ratio set for each specific shop
during a specific period of time. **In short, a customer can be allowed special services if he
buys goods at the same shop (performing an action), for example shop A, by setting the
points redeemed ratio or point redemption rate for the customer or participant higher than
the common points redeeming ratio of the online shopping mall (adjusting the customer's
or participant's redemption rate when he performs an action such as patronizing the same
shop).** Here, it is to be understood that two customers redeeming the same number of effective
points or total accumulated points or base points (**action points**) during a purchase transaction
(performing the same action) at the same shop or shop A will be assigned two different
redemption rates. One customer will receive a standard redemption rate and the other a higher
redemption rate for being a loyal customer (col. 11: 50-53).

Ikeda discloses in general a system for distributing points to identified customers who
purchase items from a plurality of shops within a mall system, wherein each shop has its own
point-issuing ratio (first reward program). The system maintains in a table or database the
number of points (base points) accumulated by a customer throughout the mall. Each shop within
the mall has its own point-redemption ratio. Moreover, during a transaction involving points
redemption at a particular shop, the customer decides to redeem a certain number of points from
his total accumulated points or base points for this shop, the system determines in real-time the
value of the customer's total points in accordance with the shop point-redemption ratio or
individual redemption rate (RR), wherein the customer can receive a higher individual point-
redemption ratio if he frequently buys products at the shop or the shop is running a special end-

of-the year promotion (determining the participant's redemption rate via a second reward program and adjusting the redemption rate for the customer or participant based on his action (frequently buying at the shop or buying during a special promotional period)-col. 11: 50-53). Additionally, the customer's determined redemption ratio at the shop is immediately retrieved (from a storage or a table or database or memory) once the customer or participant logs into the mall and indicates his intention to purchase products from the shop while redeeming a certain number of points for that shop. In short, contrary to the Applicant's contention, the participant's or customer's total redeemable points value at the shop is equal to the participant's total points or base points for that shop multiplied by a predetermined ratio or factor (for example 1 Yen for each point or 2 Yens for each point- Col. 8: 1-23; figs. 7-9).

FIG. 18 shows an example of an input screen displayed when the contents of the shop management table shown in FIG. 9 are altered from the server of each shop. On such screens, the server of each shop can be newly set, and the contents of the shop management table can be altered or deleted. Since a considerable loss would be caused by a malicious alteration of the data in the shop management table, security should be provided for the authorization for access to the shop management table.

(Col. 6: 29-38; col. 10: 16-30; col. 10: 55: to col. 11: 62; col. 11: 63 to col. 12: 20; col. 13: 28-32; figs. 6, 9 and 14-15).

Further, a customer opens a home page of the online shopping mall (merchant's site) by inputting in the address field of a local browser a URL associated with the online shopping mall (merchant's site). Then a shopping mall (merchant's site), entered in the system database and linked to the home page of the online shopping mall is displayed. For instance, a hyperlink (an

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affiliated link) or an image map (pictogram...) of a jewelry shop, an apparel shop, a grocery

shop, etc. is retrieved and displayed on the home page of the shopping mall (merchant's site). If

the customer activates or clicks the mouse on one of the displayed hyperlinks or images, related

to the different shops or stores including remote or independent shops, to visit one of his or her

favorite shops, then the names of the goods and their images and prices of the shop are displayed

on the screen. A purchasing operation is performed by clicking with the mouse on the selected

goods and the customer earns points according to the value of the transaction and the points

issuing ratio available at the shop and as determined or computed by the points management unit

linked to the shop even if the shop is remote (i.e. outside the online shopping mall or when the

shop uses its own server to participate in the online shopping mall and receives a referral

therefrom via a hyperlink displayed in the online shopping mall or merchant's site home page). It

is further recognized here that when a shop (affiliated merchant or shop) is outside the online

shopping mall or uses its own server, a hyperlink or image representing the shop's site is

displayed on the online shopping mall (merchant's site) home page screen for the customer to

click and visit the said shop to conduct a transaction and wherein the shop server is configured to

send a signal to the online shopping mall server (the shop is linked to points management unit or

loyalty server) to provide points to the customer based on the value of the transaction and the

points issuing ratio available at the shop (points allocation condition) and wherein the earned

points are used to increment the identified customer's existing points (increment a point counter

for the customer subsequent to earning points). It is also understood that each (new) shop or

(new) remote shop or (new) affiliated merchant is registered with the online shopping mall. See

Col. 4: 3-14; col. 4: 56-60;figs. 1, 2, 5, 11 and 19).

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Additionally, clicking by a customer the mouse on a remote shop (activating the link

related to the affiliated merchant and displayed on the online shopping mall or merchant's site

home page), which is displayed in the home page of an online shopping mall, but is not entered

in the online shopping mall system database (i.e. that the remote or independent shop has its own

server and storage means to store product information and receive orders from the customers via

the displayed link), can access the home page of the shop (or the shop web site). In this case, the

purchase information is simultaneously input to the database linked to the home page of the

online shopping mall and the database linked to the home page of the shop. If the shop enters the

online shopping mall, the purchase information stored in the database linked to the home page of

the shop is also transmitted to the database linked to the home page of the online shopping mall

using the existing network transfer command. In this case, the customer can access the home

page of the shop from the home page of the online shopping mall, enter a request to receive a

point-service from the online shopping mall each time the customer buys goods in the shop, and

then use the point-service system even if the customer buys goods directly through the home

page of the shop. Furthermore, each shop can easily provide a customer with the latest goods in

the shop by constantly updating the database linked to the home page (col. 13: 9-28; fig. 19).

Moreover, FIG. 18 shows an example of an input screen displayed when the contents of

the shop management table shown in FIG. 9 are altered from the server of each shop (the point

management unit or loyalty server receives a signal from the remote shop sever to provide and

store points for the visiting user in accordance with the purchase transaction value and the

points issuing ratio available at the shop, thereby updating the points management unit system

database). Since a considerable loss would be caused by a malicious alteration of the data in the

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shop management table, <u>security</u> should be provided for the authorization for access to the shop

management table. In other words, the signal or the transmission from the remote shop server to

the online shopping mall server to provide and store points for the visiting user by the points

management unit is performed in a secure manner (encrypted manner). See col. 12:52-60.

Finally, once logged in and authenticated by entering his password and ID number

(digital identifier), the user's identifier is automatically recorded in a temporary file (cookie) or

registered on the user's computer or equipment memory (RAM) throughout the browsing session

until the user or customer decides to end the session by leaving the online shopping mall

environment or the remote shop site.

US Patent 5, 806, 045A to Biorge teaches a system for providing incentive credits

(points) to a user or customer participating in one or more promotion programs via a handheld or

portable device (smart card or instrument) 74 for every qualifying transaction conducted at a

participating retailer or provider (merchant) having a provider device 76 (including a card

reader) wherein the value of the incentive credits is contingent upon the value of a current

transaction (credits are computed in function of the current transaction amount) and wherein the

customer's incentive credits are stored on the memory of the portable or handheld device 74

where they can be retrieved during a redemption process. At any given time subsequent to

storing the incentive credits on the customer's handheld device, the customer can take the said

device 74 to the same retailer or another participating retailer or provider to redeem at least a

portion of the incentive credits during a second transaction or a redemption process wherein the

stored incentive credits are transmitted from the customer's handheld device 74 to the retailer's

POS system or base device 72 (during a synchronization process). In addition, during the

redemption process or second transaction (synchronization process), the retailer's POS system or base device 72 transfers newly earned incentive credits to the customer's handheld device 74 permanent memory, based on the value of the second transaction and some other criteria, where they are being added to the existing credit balance (receiving at a client-user device 74 award transaction data or award credits during a transaction from a first base device 72 linked to client-user device or customer device 74 and provider device 76 to form a network or system 70 and wherein the system or network 70 is connected in real-time via a communication link 112 to a record-keeping facility or central authority or the outside world over a communications network or the Internet-fig.3; col. 10: 65 to col. 12: 10; col. 13: 4-22; col. 14: 1-12; col. 15: 28-53).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication from the Examiner should be directed to Jean D. Janvier, whose telephone number is (571) 272-6719. The aforementioned can normally

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be reached Monday-Thursday from 10:00AM to 6:00 PM EST. If attempts to reach the Examiner

by telephone are unsuccessful, the Examiner's Supervisor, Mr. Eric W. Stamber, can be reached

at (571) 272- 6724.

Non-Official- 571-273-6719.

Official Draft : 571-273-8300

JDJ

06/09/07   Jean D. Janvier

                                                    Patent Examiner

                                                    Art Unit 3622

JEAN D. JANVIER
PRIMARY EXAMINER

NOTICE OF APPEAL FROM THE EXAMINER TO THE BOARD OF PATENT APPEALS AND INTERFERENCES	Docket Number (Optional) 076021-00604

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ Signature_____ Typed or printed name _____	In re Application of Russell G. Ross et al.

	Application Number 10/975,277	Filed 10/28/04

For System and Method of Providing*

Art Unit 3622	Examiner Jean D. Janvier

Applicant hereby **appeals** to the Board of Patent Appeals and Interferences from the last decision of the examiner.

The fee for this Notice of Appeal is (37 CFR 41.20(b)(1)) $ 500.00

☐ Applicant claims small entity status. See 37 CFR 1.27. Therefore, the fee shown above is reduced by half, and the resulting fee is: $ _____

☐ A check in the amount of the fee is enclosed.

☒ Payment by credit card. Form PTO-2038 is attached.

☐ The Director has already been authorized to charge fees in this application to a Deposit Account. I have enclosed a duplicate copy of this sheet.

☐ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. _____ . I have enclosed a duplicate copy of this sheet.

☐ A petition for an extension of time under 37 CFR 1.136(a) (PTO/SB/22) is enclosed.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒ attorney or agent of record. 40,700
Registration number _____

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34. _____

_____
Signature

Philip E. Levy
Typed or printed name

412-566-6043
Telephone number

September 18, 2007
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 1 forms are submitted.

This collection of information is required by 37 CFR 41.31. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce. P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

*Discounts on the Purchase of Gasoline

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/975,277
Filing Date: October 28, 2004
Appellant(s): ROSS ET AL.

MAILED

APR 0 2 2008

GROUP 3600

Philip E. Levy
For Appellant

EXAMINER'S ANSWER

This is in response to the Appeal Brief filed on December 14, 2007 appealing from the

Office Action mailed on June 18, 2007.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings

which will directly affect or be directly affected by or have a bearing on the Board's decision in

the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in

the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,321,984	McCall et al.	11-2001
6,332,128	Nicholson	12-2001
5,937,391	Ikeda et al.	8-1999

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(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 are rejected under 35 U.S.C. 103(a)

as being unpatentable over **McCall, US Patent 6,321,984B1.**

(In the following action, allowing the customer to redeem a portion of his accumulated discount stored in a database reads on allowing the customer to elect a discount or a portion of the stored accumulated discounts and providing the elected discount or redeeming the portion of the discounts, if any, applicable on the price-per-unit or price-per-gallon of gasoline).

As per claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36, McCall discloses an integrated customer reward processing system and fuel dispensing apparatus to allow a retailer to authorize fuel to be dispensed at a discounted unit price in accordance with a customer's achievement of predefined purchasing criteria (or **based on one or more predetermined actions-** i.e. the customer's purchase of a quantity of promo or cross-marketed products exceeds a preset threshold or the customer's spending exceeds a predefined dollar threshold amount). More particularly, a data processing system is provided that implements customer rewards and includes a database that creates and maintains records associated with customers that make purchases at an associated store. The reward system will track the customer purchases and compare them with predefined criteria to determine when a fuel discount is to be provided. These predefined criteria may include whether the customer purchased items from a group of designated products (e.g. promotional items) exceeded a quantity threshold, a dollar value threshold, purchases made on specific dates, or the like (determining accumulated discounts for an identified customer based on one or more predetermined actions). When a customer meets one of the predefined criteria, the reward system will authorize a fuel discount (at a participating

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gas station facility) and provide the customer with a mechanism, such as a bar code printed

receipt (printed coupon), **a magnetic stripe card (bar coded card)**, an authorization code or the

like, to obtain the fuel at a discount unit price at the participating gas station.

In general, McCall discloses a system for customer promotion wherein an identified

customer may receive a discount on the price per gallon of gasoline if the customer's purchase,

during a single transaction or during a certain period **exceeds a predefined quantity or a dollar**

threshold amount (Volume purchase condition or predetermined action- See abstract; figs. 9-

10. Col. 9: 52 to Col. 10: 37).

(See abstract; col. 2: 21-67; fig. 9).

Further, FIG. 9, showing a transaction matrix or table, is a more detailed view of a

plurality of fields that may be included in a typical record 208 corresponding to a particular

customer (e.g. A. Smith). As shown in field 300 of FIG. 9, the customer name is provided along

with an identification number. For new customers, or when the system is first installed, a record

will be created when the first item is purchased at retailer's POS 200. The date of purchase when

at least one item was purchased at POS 200 of an associated retailer is provided in field 302. The

dollar value of the purchases is listed in field 304. Here, retailers may often designate various

items to trigger discounts related to competing or related items. The quantity of these designated

or trigger items that were purchased on each date (if any) are provided in field 306. Field 308 is

the total quantity of items purchased by a certain customer on a specific date. This field, along

with field 304 can be used as a criterion for determining customer loyalty. Field 310 will include

data representing the availability of a fuel discount when a preset threshold (quantity of items or

a dollar amount) is exceeding. The record will be updated in field 312 when a discount is

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provided (field 314), via a printed receipt or coupon, and actually used or redeemed by a customer. Fields 316, 318 and 320 provide totals for the dollar value fields 304, designated items purchased 306 and total quantity 308, respectively (col. 9: 23 to col. 10: 37).

In addition, at step 404 of fig. 10, a determination is made as to whether the current purchases will cause a fuel discount to be offered. This step may include determining if the customer has purchased certain designated items that will trigger a discount, **whether a total dollar value spent <u>exceeds a predefined threshold</u> and/or if a total quantity of items <u>exceeds a threshold</u>**. If at step 404, it is determined that a fuel discount is available, then at step 405 the server authorizes the discount and sends a signal to the market POS termination 200. At step 406, a bar coded discount <u>coupon (printed coupon),</u> alphanumeric authorization code, updated **magnetic card or other mechanism is provided to the customer.** At step 407, server 204 sends an authorization signal to PIB 216, which then provides corresponding commands to controller 26 in pump 112. The signal from server 204 will include an authorization code and a discount amount. The customer then inputs the fuel discount authorization code from POS 200 at pump 112 in step 408. More particularly, the customer **may swipe a magnetic card or** scan in a bar code from a receipt (printed coupon) **(having encoded thereon accumulated discount information such as $0. 10 per gallon plus $0.15 per gallon, which yield to a total of $0.25 (accumulated discount) per gallon as shown in the discount amount field 314 of fig. 9**; col. 10: 13-31) or key in an alphanumeric code at I/O 212 of pump 112 (at a participating gas station). After the customer authorization code is entered the process then compares (step 408a) the authorization code from server 204 with the code from the customer and if a match exists then proceeds to step 409 and adjusts the price of the fuel to be dispensed for this transaction

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(redemption process) in accordance with the discount information. At step 410, pump controller 26 notifies gas station POS 34 of the adjusted fuel price such that the fuel sales records will be in order and to ensure that the customer is correctly charged the discounted fuel price based on the price-per-unit or PPU or price-per-gallon or PPG discount. Next, at step 411 pump controller 26 notifies server 204 of completion of the transaction for discounted fuel and re-adjusts the fuel price to its normal level by mapping the discount amount to zero (reset the price-per-gallon on the fuel pump screen or display to its street or normal price at the conclusion of the redemption process). Server 204 then updates the customer record 208 in database 206, **storing the customer's records and discount information**, to reflect that the discount was used.

Additionally, the purchase of fuel at full price could also be used to trigger discounts on items in the retail store having POS 200. For example, when a customer purchases fuel a signal can be sent from controller 26 to PIB 216 to server 204, which then updates and analyzes the customer's record (or creates a record if none exists). **If the customer has purchased fuel in excess of a predetermined value (dollar threshold exceeding) or quantity (gallons) threshold,** then a signal can be sent from server 204 back to controller 26 via PIB 216 of fig. 8 to authorize a discount for this customer on merchandise to be purchased at a participating store In other words, a bar coded receipt (coupon) can be printed by printer 214 that the customer can then take to the participating store and redeem for a discount on one or more items purchased at a POS 200. When purchased, a signal will be sent to server 204 of fig. 8 and the customer record will be updated accordingly.

Finally, McCall teaches a fuel dispenser 12 of fig 1 having conventional graphics displays 20a, 20b and a reader device 22 embodying features of the present system. The graphics

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displays 20a and 20b each includes a large, conventional, LCD panel for showing text and

numerals, such as a price 24 that corresponds to an amount of fuel dispensed, or other customer-

related messages (col. 3: 48-54).

(Receiving a signal from a POS indicating that an identified customer is conducting a

transaction and decide whether or not the customer's purchase has exceeded a preset threshold

value, then sending a signal to a printing device to print a coupon for the customer. If no

threshold is achieved during this transaction, then the customer's purchase data are recorded and

accumulated over a certain period of time to decide in the next transaction if it is time to reward

a customer. The process of displaying a threshold exceeding and other information on a screen or

GUI is shown in fig. 9. The step of calculating a subtotal and compare it to the customer's

purchase amount or transaction value to thereby determine if it is time to reward the customer is

implicitly taught in the reference).

(Figs. 8-10; col. 8: 5 to col. 12: 25)

As per claims 1, 4, 9, 22, 25 and 31, although McCall discloses displaying transaction

information, such as a price-per-gallon of gasoline and other textual messages, on a fuel

dispenser screen to a user during a transaction at a gas station, however, McCall does not

expressly teach presenting to the user, during the fuel transaction, the accumulated discount

information (discount level) and receiving, in response, the user's choice or election to redeem or

not to redeem at least a portion or a fraction of the presented accumulated discount or a price-

per-unit discount.

However, it is common practice in the art to allow a user to access or view, online or

offline or during a transaction, accumulated discount information or accumulated points

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(discount level) stored in a database under the user's account. For instance, a user is permitted to

access or view his accumulated points stored in a database under his name or account during an

online transaction at a participating retailer and wherein the user may choose to redeem his

accumulated points displayed on a screen or a portion or a fraction thereof (See at least the

Ikeda's reference featured in the conclusion section).

("Official Notice")

Thus, an ordinary skilled artisan would have been motivated at the time of the invention

to incorporate the above disclosure into the McCall's system so as to present or display to a user

on either display 20a or 20b, coupled to the fuel dispenser 12, during a gasoline transaction at a

participating retailer the user's accumulated discount data or accumulated points or a specific or

accumulated price-per-gallon (PPG or PPU) discount on gasoline ($0.10+$0.15=$0.25 as show

in fig. 9), stored in a database under the user's account, and to allow the user to elect or choose in

real-time, if desired, to use or redeem a portion/fraction of the displayed accumulated discount or

simply to allow the user to use a specific PPG discount ($0.10/GAL) and wherein the value of

the fuel transaction is impacted by the user's choice or election to use or not to redeem a portion

of the displayed accumulated discount or accumulated price-per-gallon discount, thereby making

the system more flexible and interactive by enabling the user to view and access his accumulated

discount or accumulated price-per-gallon (PPG) discount ($0.10+$0.15=$0.25 as show in fig. 9),

stored in a database under his account, displayed on a fuel dispenser screen at a POS or gas

station upon receiving an input from the user during a transaction before the user makes a

purchase or dispenses fuel, which may be discounted based on the user's decision to redeem or

not to redeem a portion of the displayed accumulated discount or a PPG discount ($0.10/GAL as

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featured in fig.9), while rendering the system more appealing and user-friendly to the user who

now can decide in real-time and an interactive manner to partially or fully redeem the total

accumulated discount or accumulated PPG discount ($0.10+$0.15=$0.25 as show in fig. 9) as

presented on the screen during the transaction and wherein the user's account (account balance)

is updated in the database to reflect the transaction including any redemption thereof.

Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 are rejected under are rejected

under 35 U.S.C. 103(a) as being unpatentable over Nicholson, US Patent 6,332,128B1.

**(In the following action, allowing the customer to redeem a portion of his
accumulated discount stored in a database reads on allowing the customer to elect a
discount or a portion of the stored accumulated discounts and providing the elected
discount or redeeming the portion of the discounts, if any, applicable on the price-per-unit
or price-per-gallon of gasoline).**

As per claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36, Nicholson discloses a method

and a system for providing multiple level price-per-unit (PPU) discounts on gasoline to a

customer who purchases at least one cross-marketed product (predetermined action). The

customer is awarded a first PPU discount on the gasoline based on a purchase by the customer of

a first cross-marketed product (a first predetermined action) and is awarded a second PPU

discount based on the purchase of a second cross-marketed product (a second predetermined

action). The first discount is then added to the second discount to determine a total accumulated

PPU discount on gasoline available at a participating retailer and a frequent shopper's card or a

paper receipt is provided to the customer with a customer identification and a transaction

identification encoded in a bar code thereon. The total accumulated discount is stored in a

discounts issued database. The customer then scans the encoded bar code, printed on the receipt,

with a bar code scanner or swipe the shopper's card at a gasoline dispenser to redeem the total

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accumulated discounts or a portion thereof. The total discount is retrieved from the remote

discounts issued database by the gas station or fuel dispenser system and the gasoline station

then reduces the price-per-unit-volume of the gasoline by an amount less than or equal to the

total accumulated discount in the issue database. When the customer completes the gasoline

purchase, a value of the total discount redeemed is determined and stored in a discounts

redeemed database. Portions of the discount redeemed are then allocated to vendors of the first

and second cross-marketed products according to predetermined criteria (according to one or

more predetermined actions).

In general Nicholson discloses a method and a system for providing multiple level

discounts on the price-per-unit (PPU) of a consumable good sold in multiple units to a

customer who purchases a plurality of cross-marketed products comprising the steps of

awarding a first discount on the PPU of the consumable good or fuel to the identified

customer in response to a purchase by the customer of a first cross-marketed or cross-

selling non-fuel product, awarding a second discount on the PPU of the consumable good

or fuel to the customer in response to the purchase by the customer of a second cross-

marketed non-fuel product, adding the first discount to the second discount to determine a

total accumulated discount on the PPU of the consumable good or fuel, storing the total

accumulated discount data in a database for later retrieval/validation and awarding the

total discount to the customer, wherein the process of awarding the total accumulated

discounts to the identified customer includes providing the total accumulated discounts to

the said customer in the form of electronic coupon via a plurality of mechanisms, having

the total accumulated discount data encoded thereon, consisting of:

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Art Unit: 3688

    a paper receipt with the unique customer identification and discount identification encoded in a bar code imprinted thereon;

    a paper receipt with the unique customer identification and discount identification encoded in a code number imprinted thereon;

    a frequent shopper card with the unique customer identification and discount identification magnetically encoded thereon;

    a prepaid card with the unique customer identification and discount identification magnetically encoded thereon;

    a credit card with the unique customer identification and discount identification magnetically encoded thereon;

    a radio frequency identification (RFID) device with the unique customer identification and discount identification encoded in a RF transmission; and

    a smart card.

    The identified customer takes at least one of the mechanism, having the accumulated discount information encoded thereon, to a participating gas station for redemption, wherein the gas station system establishes a remote connection with the database to validate the discount data.

    Further, Nicholson teaches a controller that sends a set discount message 29 of fig. 1 to the dispenser and includes instructions to adjust the <u>displayed</u> price per gallon by the amount of

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the total PPU discount, and to set the maximum limit on the number of gallons that can be

purchased at the discounted price. Alternatively, a maximum discount value can be set. **If the**

calculated total PPU discount is greater than the PPU displayed on the gasoline dispenser, the

controller sets the displayed PPU price to zero (0). On dispensers that will not display a PPU

price of zero, **the lowest price, which the dispenser will** display **is shown to the customer**

(Col. 6: 37-49). Additionally, it is determined, at step 46 of fig. 3A, whether or not the calculated

total PPU discount is greater than the PPU displayed on the gasoline dispenser. If not, the

method moves to step 47 and subtracts the total PPU discount from the displayed PPU and then

displays a new discounted PPU on the dispenser screen at 48 **where it is viewed by the**

customer. However, if the calculated new discounted PPU is less than or equal to zero, the

discounted PPU is then set to zero (0) at 47 and is displayed on the dispenser **screen to the**

customer. If the PPU is not zero at 48, the method moves to step 49 where the display instructs

the customer to enter payment, which may be a credit card or dollar bills. If the PPU is zero, the

method moves directly to step 50 where the customer's record is locked, and a timer is started at

51. The method then moves to FIG. 3B, step 55 (Col. 7: 22-35).

In short Nicholson discloses displaying to the customer on the fuel dispenser display,

during a fuel transaction, discount information related to the PPU discount applied to the current

fuel transaction and the maximum number of gallons of gasoline that can be purchased at the

displayed PPU discount.

(See claims 1 and 5 of the current reference)

See abstract; col. 2: 40 to col.3: 31.

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As per claims 1, 4, 9, 22, 25 and 31, although Nicholson discloses displaying discount

information, such as the street price-per-gallon of gasoline, the customer's unique PPU discount

based on the grade of fuel selected by the customer, the number of gallons of gasoline that can be

dispensed at the currently displayed unique PPU discount and other relevant textual messages, on

the fuel dispenser screen to the customer or user during a transaction at a gas station upon

receiving an input from the customer or upon detecting the presence of the identified customer at

the pump (fig. 3A blocks 41 and 42), however, Nicholson does not immediately teach enabling

the user or customer, during the fuel transaction, to choose or elect to redeem or not to redeem at

least a portion or a fraction of the presented accumulated discount or total price-per-unit (PPU)

discount in response to the display.

However, it is common practice in the art to allow a user to access or view, online or offline

or during a transaction, accumulated discount information or accumulated points (discount level)

stored in a database under the user's account. For instance, a user is permitted to access or view

his accumulated points stored in a database under his name or account during an online

transaction at a participating retailer and wherein the user may choose to redeem his accumulated

points displayed on a screen or a portion or a fraction thereof (See at least the Ikeda's reference

featured in the conclusion section).

("Official Notice")

Thus, an ordinary skilled artisan would have been motivated at the time of the invention to

incorporate the above disclosure into the Nicholson's system so as to enable the user or

customer, during the fuel transaction, to choose or elect to redeem or not to redeem at least a

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portion or a fraction of the accumulated discount or total price-per-unit (PPU) discount and/or a

subset of the number of gallons of gasoline that can be dispensed at the currently calculated PPU

displayed on the fuel dispenser screen upon receiving an input from the identified customer,

wherein the value of the fuel transaction is impacted by the user's choice or election to use or not

to redeem a portion of the displayed accumulated discount or accumulated price-per-gallon

discount, thereby making the system more flexible and more interactive by enabling the user to

view and access his accumulated discount or calculated total price-per-gallon (PPU) discount

displayed on the fuel dispenser screen at the POS or gas station upon receiving an input from the

user during a transaction before the user makes a purchase or dispenses fuel, which may be

discounted based on the user's decision to redeem or not to redeem a portion of the displayed

accumulated discount or total PPU discount and/or a subset of the number of gallons of gasoline

that can be dispensed at the currently calculated PPU, while rendering the system more appealing

and user-friendly to the user who now can decide in real-time and an interactive manner to

partially or fully redeem the total accumulated discount or accumulated PPU discount and/or a

subset of the number of gallons of gasoline that can be dispensed at the currently calculated PPU

as presented on the screen during the transaction and wherein the user's account (account

balance) is updated in the database to reflect the transaction including any redemption and/or

residual discount thereof.

    (10) Response to Argument

    In general, as admitted by the Appellant, the Examiner clearly points out in the last

Office Action that the prior art of record does not enable an identified customer to interact during

the course of a transaction or fuel purchase with a database system by choosing on a fuel

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Art Unit: 3688

dispenser screen to redeem or not to redeem a portion of his stored accumulated discounts/points

and the Appellant seems to agree with the admission. However, the Examiner submits that, **it is**

common practice in the art to allow a user to access or view, online or offline or during a

transaction, accumulated discount information or accumulated points (discount level)

stored in a database under the user's account. For instance, a user is permitted to access or

view his accumulated points stored in a database under his name or account during an

online transaction at a participating retailer and wherein the user may choose to redeem

his accumulated points displayed on a screen or a portion or a fraction thereof (See at least

the Ikeda's reference featured in the conclusion section of the last Office, especially

embodiments of figs. 13 and 14). Although the Appellant, as seen on page 7 of the 37 CFR

1.111 response to the Non-Final Rejection, seems to agree with the Examiner's assertion,

however, the Appellant turns around and labels it irrelevant by proceeding to spell out what he

considers to be proper. The Examiner completely and respectfully disagreed with the Appellant's

findings at that time. **What was at stakes then and what is at stakes in the present Brief, is**

whether or not it is common practice in the art for a customer during an online or off-line

transaction, including by the way a gasoline purchase, to view his accumulated

discounts/points stored in a system database and to choose to redeem or not to redeem a

portion thereof and whether or not an ordinary skilled artisan would have been motivated,

at the time the present Application was filed, to combine the well known disclosure with the

prior art of record (i.e. the McCall's or Nicholson's Patent) and thereby arrive at the

claimed invention as featured herein. And the answer to the above question is "Yes". First,

the first part of the question was answered as supported at least by the Ikeda's Patent cited in the

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conclusion section of the last Office Action and the Appellant seems to agree with that assertion

since it appears that the "Official Notice" has not officially been challenged. Thus, the Examiner

has supported the assertion made here under the "Official Notice" in addition to the fact that the

Appellant implicitly agrees with it. Second, the Examiner has provided a motivation to combine

based on general knowledge commonly available to those of ordinary skills in the art and in

agreement with "KSR". Having said that, the Examiner has herein established a prima facie case

of obviousness as required by law and thus, the rejections should be maintained.

Although the Appellant never officially challenges the "Official Notice" per se, however,

and in response to the Examiner's position as herein featured, the Appellant argues "that the

relevant inquiry here is whether, after the purchase of a particular item is initiated by a customer

in a purchasing system, it is common practice to then access accumulated discount

information….". And the Appellant goes on and the above point spans several pages (starting at

the lower bottom of page 8). Here, contrary to the Appellant's position, the claimed invention or

at least independent claim 1 never talks about any timing issue and merely mentions "initiating

the purchase of gasoline". It is also unclear what connotation the Appellant is attributing to

"initiating the purchase of gasoline" or when the purchase is actually being initiated. Broadly

considered, "initiating the purchase of gasoline" is interpreted as "during a transaction" or

"during a purchase transaction". At best, when the customer's accumulated points or discount is

displayed to the customer during a transaction at a POS is a matter of choice, which does not

directly impact the functionality of the system. Once again, the question here is whether or not it

is common practice in the art to display or present to a customer during a transaction or purchase

the customer's accumulated discount or points and to receive a selection from the customer.

A0401

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Art Unit: 3688

Indeed, **Ikeda discloses, in support of the "Official Notice", a system wherein when a**

customer decides to buy goods (initiating a purchase) through a home page of an online

shopping mall, the number of effective accumulated points of the customer issued by a

number of stores or shops to the customer is displayed on the customer's terminal for

selection by referring to the point data of each shop forming part of the online shopping

mall (col. 2: 51-56). Having said that, the "Official Notice" disclosure could be combined with

either McCall's or Nicholson's to meet the claimed invention as one having ordinary skills in the

art would have concluded at the time of the invention (See Office Action).

Therefore, the Appellant's request for allowance or withdrawal of the last Office Action

has been fully considered and respectfully denied in view of the foregoing response since the

Appellant's arguments as herein presented are not plausible and thus, the rejections should be

maintained

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related

Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

03/30/08   Conferees   JEAN D. JANVIER
                                                                  PRIMARY EXAMINER
                           Eric Stamber (SPE)

JDJ

                           Donald Champagne (XP)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appeal No. (not yet assigned)	: Confirmation No. 6022
	:
In re Application of	: Group Art Unit 3622
	:
Russell G. Ross et al.	: Examiner: Jean D. Janvier
	:
Entitled:	: Attorney Docket No.: 076021-00604
	:
SYSTEM AND METHOD OF	: Application Serial No. 10/975,277
PROVIDING DISCOUNTS ON THE	:
PURCHASE OF GASOLINE	: Filed: October 28, 2004

APPELLANTS' REPLY BRIEF

May 27, 2008

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Appellants' Reply Brief under 37 CFR § 41.41 is in reply to the Examiner's Answer, mailed on April 2, 2008, for the above-captioned application.

Under the Grounds of Rejection section of the Examiner's Answer (pages 3-14), the Examiner's remarks appear to be a substantial copy of the Detailed Action section from the Final Office Action, mailed on June 18, 2007. Hence, the following remarks are substantially directed to the Response to Argument section of the Examiner's Answer (pages 14-17).

As discussed in detail in Appellant's Brief on Appeal, claim 1 recites the step of "obtaining said customer identification information *when said customer initiates the purchase of gasoline.*" Claim 1 then recites "accessing said stored accumulated discount information from said database *using said customer identification information* [obtained in the prior step]" and thereafter recites the steps of "determining an available discount level ...," "presenting said available discount level

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of	: Group Art Unit 3622
	:
Russell G. Ross et al.	: Examiner: Jean D. Janvier
	:
Serial No. 10/975,277	: **SYSTEM AND METHOD OF**
	: **PROVIDING DISCOUNTS ON**
Filed: October 28, 2004	: **THE PURCHASE OF GASOLINE**
	:
Attorney Docket No. 076021-00604	:

LETTER

October 9, 2009

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

    The Applicants have, on October 9, 2009 and in conjunction with this letter, filed a Request for Continued Examination (RCE) for the above-captioned application in response to the final Office Action mailed on June 18, 2007. A Response to the June 18, 2007 Office Action and an accompanying Affidavit of John Lucot, which both contain proprietary information which should not be scanned and included in the image file wrapper, are being filed under the provisions of MPEP §724.02 on October 9, 2009 by Express Mail.

                                Respectfully submitted,

                                /Philip E. Levy/
                                Philip E. Levy
                                Registration No. 40,700
                                Eckert Seamans Cherin & Mellott, LLC
                                600 Grant Street, 44th Floor
                                Pittsburgh, PA 15219
                                (412) 566-6043

10-13-09

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DO NOT SCAN

In re Application of Russell G. Ross et al.

Application No. 10/975,277

Filed: October 28, 2004

For: System and Method of Providing Discounts on the Purchase of Gasoline

TC Art Unit: 3622

Examiner: Jean D. Janvier

ARTIFACT SHEET

Enter artifact number below. Artifact number is application number + artifact type code (see list below) + sequential letter (A, B, C ...). The first artifact folder for an artifact type receives the letter A, the second B, etc.. Examples: 59123456PA, 59123456PB, 59123456ZA, 59123456ZB

10975277XA

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Other, description: _____
    Doc Code: Artifact   Artifact Type Code: Z

March 8, 2004

A0414

Doc code: RCEX
Doc description: Request for Continued Examination (RCE)

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	10975277	Filing Date	2004-10-28	Docket Number (if applicable)	076021-00604	Art Unit	3622
First Named Inventor	Russell G. Ross			Examiner Name	Jean D. Janvier		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

    ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

    ☐ Other _____

☒ Enclosed

    ☐ Amendment/Reply

    ☐ Information Disclosure Statement (IDS)

    ☐ Affidavit(s)/ Declaration(s)

    ☒ Other
        Letter filed electronically; and Response submitted under MPEP §724.02 sent by Express Mail on October 9, 2009.

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____
(Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.
☐ The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No _____

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☒ Patent Practitioner Signature
☐ Applicant Signature

EFS - Web 2.1.15

A0415

Doc code: RCEX
Doc description: Request for Continued Examination (RCE)

Signature of Registered U.S. Patent Practitioner			
Signature	/Philip E. Levy/	Date (YYYY-MM-DD)	2009-10-09
Name	Philip E. Levy	Registration Number	40700

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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A0416

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1.   The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2.   A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3.   A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4.   A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5.   A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6.   A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7.   A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8.   A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9.   A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/975,277	10/28/2004	Russell G. Ross	076021-00604	6022

3705   7590   10/29/2009
ECKERT SEAMANS CHERIN & MELLOTT
600 GRANT STREET
44TH FLOOR
PITTSBURGH, PA 15219

EXAMINER
JANVIER, JEAN D

ART UNIT	PAPER NUMBER
3688	

MAIL DATE	DELIVERY MODE
10/29/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/975,277	10/28/2004	Russell G. Ross	076021-00604	6022

3705   7590   02/26/2010
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PITTSBURGH, PA 15219

EXAMINER
JANVIER, JEAN D

ART UNIT	PAPER NUMBER
3688	

MAIL DATE	DELIVERY MODE
02/26/2010	PAPER

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PTOL-90A (Rev. 04/07)

A0448

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/975,277	10/28/2004	Russell G. Ross	076021-00604	6022

3705   7590   07/28/2011
ECKERT SEAMANS CHERIN & MELLOTT
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EXAMINER
SIGMOND, BENNETT M

ART UNIT	PAPER NUMBER
3688	

MAIL DATE	DELIVERY MODE
07/28/2011	PAPER

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
10/975,277	28 October 2004	ROSS ET AL.	076021-00604

EXAMINER
BENNETT SIGMOND

ECKERT SEAMANS CHERIN & MELLOTT
600 GRANT STREET
44TH FLOOR
PITTSBURGH, PA 15219

ART UNIT	PAPER
3688	20110727

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Commissioner for Patents

Pursuant to 37 CFR 1.111, 1.134 and 1.135(c), Applicant is hereby notified that the Response to Office Action mailed on March 23, 2011 to the Office Action mailed on on February 23, 2011 is deemed non-compliant. Specifically, the Response fails to address the rejection of claims 1, 4, 7-12, 14-16 and 20-21 pursuant to 35 U.S.C. 101 and also fails to address examiner's conclusion that the 1.132 Affidavit received by the Office failed to overcome previous claim rejections under 35 U.S.C. 103 set forth in the Office Action mailed February 26, 2010. As the March 23, 2011 submission references an "Amendment in response to the May 26, 2010 Office Action" and a "Second Affidavit of John Lucot", examiner concludes that the response appears to be a bona fide effort to advance the application to final action as requird by 37 CFR 1.135(c). However, neither a second affidavit of John Lucot nor a claim amendment post-dating the February 26, 2010 Office Action has been received by the Office and associated with the within patent application. Applicant is given a shortened statutory period of ONE MONTH or THIRTY DAYS from the mailing date of this Office communication, whichever is longer, to submit a complete reply to the office action mailed February 26, 2010, including if applicable, re-submission of any claim amendments or affidavits applicant claims to have filed after the mailing of the February 26, 2010 Office Action. The time period for reply to this Office Communication may be extended pursuant to 37 CFR 1.136(a).

/JOHN G. WEISS/
Supervisory Patent Examiner, Art Unit 3688

A0518

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of	: Group Art Unit 3622
	:
Russell G. Ross et al.	: Examiner: Jean D. Janvier
	:
Serial No. 10/975,277	: **SYSTEM AND METHOD OF**
	: **PROVIDING DISCOUNTS ON**
Filed: October 28, 2004	: **THE PURCHASE OF GASOLINE**
	:
Attorney Docket No. 076021-00604	:

AFFIDAVIT OF JOHN LUCOT

I, JOHN LUCOT, state as follows:

1.   I am Executive Vice President & Chief Operating Officer of Giant Eagle, Inc. (hereinafter "Giant Eagle"), headquartered in Pittsburgh, Pennsylvania.

2.   Giant Eagle is a large regional supermarket and convenience store retailer and distributor with over eight (8) billion dollars in annual sales. Giant Eagle was founded in 1931 and has grown to be the leading supermarket retailer in its region with 158 corporate and 65 independently owned and operated supermarkets in addition to more than 150 fuel and convenience stores (operated by Giant eagle under the GetGo® brand) throughout western Pennsylvania, Ohio, north central West Virginia and Maryland.

3.   I earned a B.S. in Business Administration from Duquesne University in 1979 and a Master's of Business Administration from The University of Pittsburgh in 1987.

4.   I joined Giant Eagle in 1974 as a retail clerk. Upon graduating from Duquesne University, I accepted an executive position in Distribution with Giant Eagle. In 1989, I was promoted to Vice President of Retail Development, and in 1992 I was promoted to Senior Vice President of Retail Development. I became Executive Vice President in 2001, and assumed my current role of Executive Vice President and Chief Operating Officer in 2005. As of March of 2009, I am responsible for the following areas in Giant Eagle: Store Operations (including all banners), Logistics and Distribution,

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Supply Chain, Real Estate, Store Planning & Construction, Merchandising, Marketing & Own Brands, Pharmacy, and Fuel & Convenience.

5.   The assignee of United States Patent Application Serial No. 10/975,277, Phoenix Intangibles Holding Company, is an intellectual property holding company and is a wholly owned subsidiary of Giant Eagle.

6.   Giant Eagle provides a customer loyalty program in which customers are provided with a customer card, known as a Giant Eagle Advantage Card®, which enable the customers to receive discounts on selected products if their Giant Eagle Advantage Card® is presented at the time of purchase. A Giant Eagle Advantage Card® has a customer identification number encoded thereon in the form of an optically readable bar code which links the customer and the card to a particular account and/or record associated with the customer and which may be scanned at the time purchases are made.

7.   Giant Eagle also provides a program known as fuelperks!® which enables customers to earn discounts (price per gallon discounts) on the purchase of fuel that may be redeemed at Giant Eagle's GetGo® fuel and convenience store locations. The fuelperks!® program was initially launched in limited stores in late 2003, and is now active in all Giant Eagle retail locations.

8.   In the fuelperks!® program, and by using their Giant Eagle Advantage Card®, customers are able to earn fuel discounts (price per gallon discounts) based on non-fuel purchases that are made at Giant Eagle supermarket and convenience store retail locations and then redeem those discounts when purchasing fuel at Giant Eagle's GetGo® fuel and convenience store locations. More specifically, when a customer purchases non-fuel items from a Giant Eagle supermarket or convenience store retail location, the customer's Giant Eagle Advantage Card® is scanned at the point of sale in order to obtain the customer's identification number that is encoded on the card. The amount of the discount (the price per gallon discount) that is earned for that transaction is then determined based on the particular purchases that are made. Generally, each customer earns a discount of 10 cents per gallon for every fifty dollars worth of non-fuel items that are purchased. Giant Eagle centrally stores the total price per gallon discount earned by each customer in a centralized database in association with

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each corresponding customer identification number. Each time a new discount is earned, the customer's discount record in the centralized database is updated accordingly (i.e., the total earned price per gallon discount amount is increased by the appropriate amount).

9.   When the customer subsequently purchases fuel at a GetGo® fuel and convenience store location, the customer scans the Giant Eagle Advantage Card® at the pump so that the customer's identification number can be obtained. Using the identification number, the customer's current total available price per gallon discount is obtained from the central database and presented to the customer at the pump. The customer is then given an election option at the pump wherein the customer may, after being presented with the current available discount, elect whether to use that discount in the current fuel purchase transaction, or instead would prefer to save the discount for additional accumulation and later use. If the customer elects to use the current available discount, the fuel price is then adjusted accordingly (the displayed price is actually on the pump) and the customer's accumulated discount information stored in the central database is updated to reflect that that discount has been used. If the customer elects not to use the current available discount, no adjustment is made to the customer's accumulated discount information stored in the central database, and additional discounts will continue to accumulate based on future purchases.

10.   The fuelperks!® program at Giant Eagle has been an extremely successful marketing tool for Giant Eagle, and has been a proven tool for driving customer traffic to Giant Eagle supermarket retail locations. Our internal analysis has determined that the fuelperks!® program has lead directly to an overall 5-6% increase in gross sales for Giant Eagle supermarket retail locations (based on sales figures from various retail locations before and after rollout of the program).

11.   The fuelperks!® program at Giant Eagle is used extensively by and has been extremely well received by our customers. During Fiscal year 2009 (June 29, 2008 to June 27, 2009), 2,576,123 unique households received discounted fuel through the fuelperks!® program. During that same period, Giant Eagle awarded $282,000,000 worth of free fuel to its customers through the fuelperks!® program.

12.   We have also been able to determine that many customers like to accumulate their earned discounts over time (i.e., not use them at each fuel purchasing

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transaction), with the goal being to earn enough of a total price per gallon discount to be able to get a free tank of gas (i.e., accumulate a price per gallon discount equal to the current per gallon price of gasoline). In order to accumulate earned discounts for this purpose, customers will, after being presented with the currently available price per gallon discount at the pump, need to elect <u>not</u> to use that discount if it does not equal the current per gallon price of gasoline. From September 1, 2008 to August 31, 2009, 25% of fuel transactions where a customer scanned their Giant Eagle Advantage Card® at the pump ultimately resulted in the customer deciding <u>not</u> to redeem their available discount.

13. Giant Eagle has over the course of the development and implementation of the fuelperks!® program conducted customer focus groups to collect information from customers about how the fuelperks!® program was being received. As part of that process, Giant Eagle personnel collected a large number of customer testimonials relating to the fuelperks!® program. These customer testimonials are recorded and maintained in Giant Eagle's internal marketing records. In many of those testimonials, customers indicated that they like having the ability during a particular fuel purchasing transaction to choose to either use (redeem) their accumulated fuelperks!® discount or instead not redeem and continue to save their accumulated fuelperks!® discount so that additional discount amounts can be earned toward a free tank of gas. A number of those testimonials taken from our marketing records are reproduced in Exhibit A hereto.

14. Giant Eagle's internal records indicate that from September 1, 2008 to August 31, 2009, 709,869 customers earned 2,049,814 free tanks of gas through the fuelperks!® program. This indicates that a large number of customers are in fact frequently choosing to elect not to use discounts until they have accumulated to the point where a free tank of gas may be obtained.

15. Thus, it has become evident to us that this great desire of customers to save earned discounts toward a free tank of gas has been one of the major contributors to the tremendous success of the fuelperks!® program. Accordingly, it has also become evident to us that the at pump election feature of the fuelperks!® program has been one of the major contributors to the tremendous success of the fuelperks!® program.

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16.   Further evidence showing that many customers like to have the ability to elect at the pump not to use their fuelperks!® discounts in order to further accumulate discounts can be found from an analysis of the number of fuel transactions where customers choose to redeem fuelperks!® discounts worth 50 cents per gallon or more. In particular, in the fuelperks!® program, customers need to spend $250 in order to earn a 50 cents per gallon fuelperks!® discount. The data that Giant Eagle has gathered shows that there are significantly more transactions where customers redeem 50 cents per gallon or more in fuelperks!® discounts as compared to the number of transactions where customers purchase non-fuel products totaling $250 or more. This shows that many customers are not redeeming fuelperks!® discounts immediately after they are earned (e.g., at the next fuel purchase transaction), and instead prefer to accumulate their fuelperks!® discounts to significantly reduce the price per gallon of fuel. Specifically, from September 1, 2008 to August 31, 2009, there were 1,909,931 non-fuel purchase transactions (at Giant Eagle supermarket and convenience store retail locations) totaling $250 or more. In comparison, during the same period, there were 10,083,941 fuel transactions where a customer redeemed 50 cents per gallon or more in fuelperks!® discounts.

17.   We have also found that, on average, customers fill their vehicles with more fuel (a greater number of gallons) during transactions in which they are redeeming earned fuelperks!® discounts as compared to transactions in which they purchase fuel without actually redeeming earned fuelperks!® discounts. For example, from January 2009 to March 2009, the average number of gallons pumped in transactions where fuelperks!® discounts were redeemed was 15.97 gallons, and the average number of gallons pumped in transactions where fuelperks!® discounts were not redeemed was 10.08 gallons. The feature of the fuelperks!® program that gives customers the ability to elect at the pump whether or not to redeem fuelperks!® discounts after being advised of the current available discount level gives our customers the flexibility to choose when to use their earned fuelperks!® discounts based on how much fuel they currently need. More specifically, if a small amount of fuel is needed, they may elect not to use their fuelperks!® discounts, preferring to save them for a situation where they need more fuel (e.g., a full tank). Also, we have found that some customers who own more than one

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vehicle prefer to save their fuelperks!® discounts until the vehicle with the larger fuel tank is nearly empty to maximize the amount of fuel they can purchase at a discount (the fuelperks!® program currently puts a 30 gallon limit on the total amount of fuel that can be purchased using a discount during a single transaction). This flexibility provided by the at pump election feature of the fuelperks!® program is thus an important feature for our customers and is another factor that has lead to the tremendous success of the fuelperks!® program. This flexibility would not be provided if discounts were automatically applied as soon as the customer scanned their Giant Eagle Advantage Card® at the pump.

18.   The importance of the at pump election feature of the fuelperks!® program has increased even more recently with the recent launch (November 2008 in Columbus and April 2009 in Pittsburgh) of another program at Giant Eagle known as foodperks!®. In the foodperks!® program, customers are able to earn discounts toward the purchase of non-fuel products at Giant Eagle supermarket and convenience store retail locations based on the purchase of fuel at Giant Eagle's GetGo® fuel and convenience store locations. Currently, customers earn a 1% discount on the purchase of non-fuel products for every ten gallons of fuel that are pumped. To earn foodperks!® discounts when pumping fuel, customers must scan their Giant Eagle Advantage Card® at the pump when initiating the pumping of fuel so that their customer identification number can be obtained and earned discounts can be credited and stored appropriately. Thus, Giant Eagle customers that in the past (prior to the foodperks!® program) may have pumped fuel without scanning their Giant Eagle Advantage Card® when they did not want to redeem fuelperks!® discounts now have an incentive (i.e., the earning of foodperks!® discounts) to scan their Giant Eagle Advantage Card® during every fueling transaction, even if they intend not to redeem fuelperks!® discounts. Proof of the effect of this incentive may be found in the fact that: (i) following the launch of the foodperks!® program in the Columbus, Ohio area in November of 2008, the rate at which customers purchasing fuel at GetGo® fuel and convenience store locations in the Columbus, Ohio area scanned Giant Eagle Advantage Cards® increased by 10% (from approximately 75% of transactions to approximately 85% of transactions), and (ii) following the launch of the foodperks!® program in the Pittsburgh area in April of 2009,

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the rate at which customers purchasing fuel at GetGo® fuel and convenience store locations in the Pittsburgh area scanned Giant Eagle Advantage Cards® increased by 15% (from approximately 65% of transactions to approximately 80% of transactions). Without the at pump election feature of the fuelperks!® program, customers would essentially be forced to make an undesirable choice, namely redeem fuelperks!® discounts when they did not want to in order to earn foodperks!® discounts, or lose out on earning foodperks!® discounts so that fuelperks!® discounts will not be redeemed when not desired. Therefore, without the at pump election feature of the fuelperks!® program, we firmly believe that the fuelperks!® program would be less popular with customers and therefore less successful for Giant Eagle.

19. In summary, Giant Eagle's fuelperks!® program has been and continues to be a tremendous success for Giant Eagle. It has lead to increased customer traffic and visits to Giant Eagle supermarket and convenience store retail locations and increased sales which we estimate at 5-6%. Also, a large degree of customer satisfaction with the program can be tied directly to the at pump election feature of the fuelperks!® program which gives the customers the ability during a particular fuel purchasing transaction to choose to either use (redeem) their accumulated fuelperks!® discount or instead not redeem and continue to save their accumulated fuelperks!® discount so that additional discount amounts can be earned (possibly toward a free tank of gas).

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Further Affiant sayeth not.

All statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

_____
John Lucot
Executive Vice President &
Chief Operating Officer
Giant Eagle, Inc.

Date: 10/7/09

Commonwealth of Pennsylvania   :
                                   : SS:
County of Allegheny   :

Before me, a Notary Public in and for the said County and State, personally appeared **JOHN LUCOT**, who acknowledged that he is the person who executed the foregoing affidavit and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this 7th day of October, 2009.

_____
Notary Public

(Notarial Seal)

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Leyha M. Crawford, Notary Public
O'Hara Twp., Allegheny County
My Commission Expires March 26, 2011
Member, Pennsylvania Association of Notaries

[SIGNATURE PAGE TO JOHN LUCOT AFFIDAVIT]

A0526

EXHIBIT A
GIANT EAGLE CUSTOMER TESTIMONIALS

Columbus Market

"I like having the choice to use my discounts right away or save them once I have a larger discount." — *Jeffrey Reese*

"We have filled our car up for free on several occasions with the fuelperks! program. Probably as many as 10 times!" — *Victoria Smith*

"We have saved over $1 in fuelperks! Last summer, we used our fuelperks! discount when we filled our camper before we went on a trip and it was a huge savings!" — *Arlette Coleman*

"I haven't paid for a tank of gas in over a year!" — *Cheryl Keller*

"I like that you can accumulate your fuelperks! and decide to redeem right away or wait until you have a bigger discount." — *Charlene Lindsay*

Toledo Market

"The fuelperks! program is great because you can accumulate your discounts to get a free tank of gas!" — *Rodney Wright*

"I like to accumulate my fuelperks! until I have a free tank. That's usually a savings of at least $70, which is pretty significant!" — *Carl Deliberto*

"I like that you can continue to build up your fuelperks! to accumulate a larger discount." — *Rita Aller*

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"I like the fact that you can accrue your fuelperks! over a period of three months before they expire." – *Kathleen Riley*

"I like that you can accumulate your fuelperks! up to the purchase price of gas. Other programs you are limited in how much you can earn." – *Michelle Leasor*

Maryland Market

"It's fun to let the points accumulate and get a larger discount." – *Kate Bufter*

"We've gotten a free tank of gas at least three times with fuelperks!" – *Linda Lebo*

"We have had quite a few free tanks of gas because of gift cards, pharmacy and groceries." – *Kathleen Golub*

"I like to accumulate my fuelperks! until I have a free tank of gas." – *Lois Strickland*

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of   :   Group Art Unit   3622

                                     :

Russell G. Ross et al.   :   Examiner: Jean D. Janvier

                                       :

Serial No. 10/975,277   :   **SYSTEM AND METHOD OF**

                                     :   **PROVIDING DISCOUNTS ON**

Filed: October 28, 2004   :   **THE PURCHASE OF GASOLINE**

                                     :

Attorney Docket No. 076021-00604   :

RESPONSE TO OFFICE ACTION

October 9, 2009

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

     The present Response is being filed in response to the final Office Action mailed on June 18, 2007. This Response is being filed with a Request for Continued Examination (RCE). In addition, this document, and the accompanying Affidavit of John Lucot, contain proprietary information which should not be scanned and are being submitted under the provisions of MPEP §724.02.

     A complete listing of the claims begins on page 2 of this paper.

     Remarks begin on page 10 of this paper.

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Complete listing of the claims:

    1.   (Previously Presented) A method of providing a customer with an ability to purchase gasoline at a discount, said customer having customer identification information, the method comprising:

    determining accumulated discount information each time: (i) said customer performs at least one of one or more predefined actions, (ii) said customer identification information is received in association with said at least one of one or more predefined actions, and (iii) first information relating to said at least one of one or more predefined actions is received, said accumulated discount information being based on said first information;

    storing in a database said accumulated discount information in association with said customer identification information;

    obtaining said customer identification information when said customer initiates the purchase of gasoline;

    accessing said stored accumulated discount information from said database using said customer identification information;

    determining an available discount level based on said accumulated discount information that is accessed;

    presenting said available discount level to said customer;

    receiving from said customer in response to said presenting step either an election not to take a discount or an election to take a discount equal to an elected discount level;

    providing no discount to said customer on said purchase of gasoline if said election not to take a discount is received; and providing said customer with a discount equal to said elected discount level on said purchase of gasoline if said election to take a discount equal to said elected discount level is received.

    2.   (Previously Presented) The method according to claim 1, said customer having one or more customer identification elements each having said customer identification information associated therewith, wherein said customer identification information is received in association with said at least one of one or more predefined

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: :   Entitled:

Russell G. Ross et al.   :   System and Method of Providing Discounts
                                                                On the Purchase of Gasoline
Serial No. 10/975,277   :

Filed October 28, 2004   :

Art Unit 3622   :   Confirmation No. 6022

Examiner Jean D. Janvier   :   Attorney Docket No. 076021-00604

<u>SECOND AFFIDAVIT OF JOHN LUCOT</u>

I, John Lucot, state as follows:

1.   This Second Affidavit of John Lucot supplements and incorporates by reference Paragraphs 1 through 19 of my Affidavit dated October 7, 2009 ("First Affidavit").

2.   Consumers in the markets in which Giant Eagle serves (western Pennsylvania, Ohio, north central West Virginia, and Maryland) have several choices as to where to do their supermarket shopping. Giant Eagle's direct competitors in the retail supermarket business in its markets include at least the following:

- Acme – Akron and Canton markets
- Aldi – all markets
- Buehler's – Ohio markets
- Costco – all markets
- Foodland – Pittsburgh markets
- Kroger – Columbus, Toledo, and West Virginia markets
- Marc's – Ohio markets
- Martin's – Altoona markets
- Meijer – Columbus markets
- Shop 'n Save – Pittsburgh and West Virginia markets

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- Trader Joes – all markets
- Walmart – all markets
- Whole Foods – all markets

3. Of the above direct competitors, the following offer fuel discount programs, wherein discounts are earned based on grocery and other sales in the supermarket:

- Acme – Fuel Rewards (program commenced March 2009)
- Foodland – FuelLinks (program commenced April 2006)
- Kroger – Fuel Saver Rewards
- Martin's – Gas Extra Rewards
- Shop 'n Save – Pump Perks (program commenced May/June 2005)

4. As stated in Paragraph 10 of the First Affidavit, our internal analysis has determined that the fuelperks!® program has lead directly to an overall 5% to 6% increase in gross sales for Giant Eagle supermarket retail locations (based on sales figures from various retail locations before and after rollout of the program).

5. Based on data compiled by The Nielsen Company, we have been able to determine that Giant Eagle's market share in the retail supermarket business in its markets has grown steadily since 2005. In particular, based on the Nielsen data, Giant Eagle's market share growth in the retail supermarket business in its markets since 2005 is as follows:

Year	Market Share
52 weeks ending 12/26/09	16.2
52 weeks ending 12/27/08	14.5
52 weeks ending 12/29/07	14.1
52 weeks ending 12/30/06	13.0

- 2 -

52 weeks ending 12/31/05	11.7

6.   As also set forth extensively in the First Affidavit, the popularity of the fuelperks!® program is tied to consumers' ability to elect or not elect to use their fuel discount when initiating a fuel purchase.

7.   The fuelperks!® program has been recognized by the industry as an innovative program. Specifically, Giant Eagle was named the Retailer of the Year in 2007 by *Grocery Headquarters Magazine.* In an article announcing the award, *Grocery Headquarters Magazine* stated the following about Giant Eagle's Advantage Card® loyalty program (see paragraph 6 of the First Affidavit regarding the program): "With 3.5 million cardholders, the program can certainly be called a success. But what has taken it to a higher level is adding a gasoline marketing component called Giant Eagle fuelperks! that debuted about four years ago.". In addition, based on the fuelperks!® program, Giant Eagle received the IBM Retail Leader Award for Excellence in Loyalty Marketing at the LEAD Marketing Conference in October of 2009.

8.   Further Affiant sayeth not.

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- 3 -

All statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

John Lucot
Executive Vice President &
Chief Operating Officer
Giant Eagle, Inc.

Date: 8/23/10

Commonwealth of Pennsylvania   :

County of Allegheny   : SS:

    :

Before me, a Notary Public in and for the said County and State, personally appeared JOHN LUCOT, who acknowledged that he is the person who executed the foregoing affidavit and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this 23rd day of August, 2010.

Notary Public

(Notarial Seal)

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Leyha M. Crawford, Notary Public
O'Hara Twp., Allegheny County
My Commission Expires March 28, 2011
Member, Pennsylvania Association of Notaries

[SIGNATURE PAGE TO SECOND AFFIDAVIT OF JOHN LUCOT]

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/975,277	10/28/2004	Russell G. Ross	076021-00604	6022

3705   7590   10/18/2011
ECKERT SEAMANS CHERIN & MELLOTT
600 GRANT STREET
44TH FLOOR
PITTSBURGH, PA 15219

EXAMINER
SIGMOND, BENNETT M

ART UNIT	PAPER NUMBER
3688	

MAIL DATE	DELIVERY MODE
10/18/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

A0572

	Application No.	Applicant(s)
Office Action Summary	10/975,277	ROSS ET AL.
	Examiner	Art Unit	
	BENNETT SIGMOND	3688	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _22 August 2011_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____ ; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) _1-4,7-12,14-16,20-25,29-32 and 34-36_ is/are pending in the application.

    5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) _1-4, 7-12, 14-16, 20-25, 29-32 and 34-36_ is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ .

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

Application/Control Number: 10/975,277   Page 2
Art Unit: 3688

DETAILED ACTION

This communication is in response to the Response to Notice of Non-Compliant

Response dated August 22, 2011 as well as the documents submitted or re-submitted

with said Notice, including the Amendment dated August 24, 2010, Affidavit of John

Lucot, Second Affidavit of John Lucot (collectively, "Lucot Affidavits") and Remarks in

response to the June 18, 2007 Office Action. Examiner has considered all of the

foregoing materials and is treating all such materials as timely for purposes of this Office

Action.

Procedural Status

Pursuant to a Decision on Appeal dated August 11, 2009 in Appeal No. 2009-

003447 ("Decision"), the Board of Patent Appeals and Interferences ("BPAI") sustained

the examiner's rejections of all claims then pending in this case. In a final office action

mailed June 18, 2007 (the "June 18, 2007 Office Action"), the examiner had rejected all

claims pursuant to 35 U.S.C. §103(a) as unpatentable over U.S. Pat. No. 6,321,984 B1

dated November 27, 2001 to McCall, et al. (hereinafter, **"McCall"**) and also rejected all

claims pursuant to 35 U.S.C. §103(a) as unpatentable over U.S. Pat. No. 6,332,128 B1

dated December 18, 2001 to Nicholson (hereinafter, **"Nicholson "**). The rejections

found that the claimed invention was obvious in view of the cited art in combination with

common knowledge of skilled artisans as set forth in an Official Notice supported by

U.S. Pat. No. 5,937,391 dated August 10, 1999 to Ikeda, et al. (hereinafter, "Ikeda").

Application/Control Number: 10/975,277   Page 3
Art Unit: 3688

Following the Decision, Applicant requested continued examination of the pending claims. In support of the request, applicant offered the Affidavit of John Lucot ("First Lucot Affidavit") as evidence of commercial success of the invention, sufficient to overcome the obviousness rejections. In a non-final office action dated February 26, 2010, the examiner sustained the rejections over the affidavit. Ultimately, in response to the February 26, 2010 office action, applicant has filed a Response to Notice of Non-Compliant Response dated August 22, 2011, a Second Affidavit of John Lucot ("Second Lucot Affidavit"), claim amendments and remarks. All of the foregoing documents filed on August 22, 2011 are being treated as timely.

Response to Arguments

Examiner finds persuasive, applicant's argument that the amendments to claim 1 are sufficient to overcome the previous claim rejections pursuant to 35 U.S.C. §101 and such rejections have been withdrawn.

Examiner finds persuasive, applicant's arguments that all documents submitted after the Decision have been timely filed and all such documents are being treated as such.

Examiner also finds persuasive, applicant's evidence as set forth in the Second Lucot Declaration and accompanying remarks, that the invention is offered in a marketplace where the customer is free to choose based on objective principles. In that regard, Mr. Lucot's testimony that there are 5 competitors that offer fuel discount

programs based on grocery and other supermarket sales in the areas where Giant

serves customers (Second Lucot Declaration, ¶ 3) is particularly persuasive.

However, examiner *does not find persuasive,* applicant's evidence and

arguments that the Lucot Affidavits prove a nexus between commercial success and the

inventive features subject to Official Notice which were combined with McCall and

Nicholson in formulating the obviousness rejections ultimately sustained by the Board.

Evidence of commercial success must demonstrate that the commercial success

is due to the claimed features in issue, rather than some other aspect of the disclosed

invention (see MPEP §716.03(a)(I) citing *Joy Technologies Inc. v. Manbeck,* 751

F.Supp. 225, 229, 17 USPQ2d 1257, 1260 (D.D.C. 1990) aff'd, 959 F.2d 226, 228, 22

USPQ2d 1153, 1156 (Fed Cir. 1992)) or other business developments such as

advertising, promotion, changes in demand, changes in competitors, business

expansion or other events extraneous to the claimed invention (see MPEP §716.03(b)(I)

citing *In re Mageli,* 470 F.2d 1380, 176 USPQ 305 (CCPA 1973). A mere showing that

there was commercial success in the sale of an article which was embodied in the

invention is not in and of itself, sufficient (see MPEP §716.03(b)(I) citing *Ex parte

Remark,* 15 USPQ2d 1498, 1502-02 (BPAI 1990)).

In essence, examiner took official notice that it was within the common

knowledge of skilled artisans at the time of the invention to offer consumers a choice of

using or not using an available discount and of applying some or all of an available

discount to a purchase (see June 18, 2007 Office Action at pp. 9, 10 and 15). Examiner

combined this Official Notice with McCall and Nicholson to conclude that it would have

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been obvious to one having ordinary skill in the art at the time of the invention to offer

the foregoing choices as to the use of a discount in the context of a purchase of

gasoline based on purchases of nonfuel products. This, according to the examiner,

rendered obvious, at least claims 1, 4, 9, 22, 25 and 31 where this feature was claimed.

In the Decision, the Board sustained examiner's position.

The First Lucot Affidavit states that Giant offers customers a discount of 10 cents

per gallon for every 50 dollars worth of non-fuel items they purchase (see ¶8). Giant

customers may choose to use or accumulate the discount and may choose to apply

various levels of discount to a given fuel purchase (see, i.e. ¶9). The First Lucot

Affidavit then cites a number of facts that purport to demonstrate that this choice has

brought commercial success. However, none of the facts set forth in either Lucot

Affidavit proves that Giant has realized any statistically significant increase in its fuel

sales, non-fuel sales, combined fuel and non-fuel sales, profit margins or market share,

as a result of offering the consumer a choice of what, if any level of discount to apply to

a purchase of fuel.

At ¶¶10 and 19, the First Lucot Affidavit asserts that an "internal analysis" of the

fuelperks® program shows that the program has led to a 5-6% increase in gross sales.

This, of course, is an unsupported conclusion. Lucot offers no facts which reliably

correlate the discount choice aspect of the fuelperks® program with a 5%-6% increase

in what Lucot earlier describes as eight (8) billion in annual sales (see First Lucot

Affidavit at ¶2)). Further, even if the conclusion were accepted at face value, Lucot

attributes the increase in sales revenue to the *fuelperks® program*, not merely to that

aspect of the program that offers options as to the use of an available fuel purchase

discount. The other aspects of the fuelperks® program are anticipated by McCall and

Nicholson. Thus, ¶¶10 and 19 fail to establish a nexus between the claim features in

issue and the stated commercial success.

Similarly, at ¶12, the First Lucot Affidavit cites to a large number of households

that received discounted fuel and an aggregate value of the discount provided.

However, these assertions demonstrate a large *loss* of revenue from the market price of

fuel that could be collected. A loss of revenue does not amount to commercial success.

¶12 does not tie this loss to any gain that could be considered "success", such as a

larger increase in sales, profits, market share, etc. Further, the facts provided do not

distinguish between use of the claimed discount option features in issue and use of the

discount aspects of the fuelperks® program. In short, offer a discount and people will

use it. These facts do not even tie use of the program to the flexibility in the user of

discounts.

At ¶12, the First Lucot Affidavit also asserts that 25% of the fuel transactions

where customers use their cards result in elections not to take a discount. Similarly, at

¶14, the First Lucot Affidavit provides metrics as to the volume of customers electing to

accumulate discounts until they can obtain free tanks of gas. Thus, although these

statistics do demonstrates a volume of use of the flexible discount options, use of the

item in and of itself does not amount to commercial success. Indeed, provision of

2,049,814 free tanks of gas demonstrates a *large loss of revenue* as a result of the

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claimed discount features. The affidavit fails to establish any nexus between this loss and any materially greater gain that can be characterized as "commercial success".

At ¶ 13, the First Lucot Affidavit discusses a "large number of testimonials". This is purely subjective and fails to establish the required nexus

At ¶16, the First Lucot Affidavit asserts that a customer has to spend $250 in nonfuel purchases in order to realize a 50 cents per gallon discount on gas, and then goes on to state that the number of transactions where a customer redeems 50 cents or more per gallon exceeds the number of transactions where a customer spends $250 on non-fuel items. This appears to be a comparison of apples to oranges. The First Lucot Affidavit does not state that the $250 in non-fuel purchases must be undertaken in one transaction. Again, this paragraph would appear to demonstrate that Giant is losing more money giving away fuel discounts than it is gaining elsewhere. No nexus is established between use of a 50 cent discount on gas and a tangible gain that exceeds the loss.

At ¶17, the First Lucot Affidavit asserts that average purchase of gas with a discount involved more gallons of gas than the average purchase of gas without a discount. However, given a lower price with a discount, this demonstrates only that customers are making their gas money go further given the lower price. It may also demonstrate that customers lack confidence about the direction of gas prices and are buying what they can afford with their discounts. Indeed, given the facts offered in ¶17, customers could be buying more gas per trip but filling up less often, resulting in lower

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overall monetary fuel sales. There is no nexus between the claimed features and a measurable gain, only a loss of revenues from discounting fuel.

At ¶17, the First Lucot Affidavit asserts that customers are scanning their cards more often given the prospect of earning discounts on the purchase of non-fuel products based on fuel purchases. This demonstrates use of the election not to take a discount on a fuel purchase, but does not demonstrate that the election results in higher overall sales, profits, margins, market share, etc. Additionally, these facts may have more to do with the foodperks® program than with the fuelperks® program.

Finally, ¶5 of the Second Lucot Affidavit states that Nielsen data shows Giant's market share steadily increasing from 2006-2009. No particular reports are identified nor are any attached in support of these figures. Apart from being rank hearsay, the assertion offers facts to reliably attribute the claimed increases in market share to provision of a number of choices regarding use of available fuel discounts as opposed to provision of only one such choice. The cited increases in market share could have been due to advertising, acquisitions, new stores, new products or services, lower prices, competitor weaknesses, the mere provision of a discount on gas without regard to a choice in the application of the discount, or a host of other factors besides the claim feature in issue. The coexistence of the discount choices and increases in market share does not prove a causal relationship.

For all of the foregoing reasons, examiner finds that the Lucot Affidavits are insufficient to overcome the evidence cited by examiner that it would have been obvious to one having ordinary skill in the art at the time of the invention to apply the well-known

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method of offering a choice in the application of available discounts to available

discounts in the purchase of gasoline. Accordingly, subject to slight modifications to

address changes to claim 1, examiner hereby repeats and affirms the claim rejections

sustained by the Board.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 are rejected under 35 U.S.C.

§103(a) as being unpatentable over **McCall.**

(In the following action, allowing the customer to redeem a portion of his

accumulated discount stored in a database reads on allowing the customer to

elect a discount or a portion of the stored accumulated discounts and providing

the elected discount or redeeming the portion of the discounts, if any, applicable

on the price-per-unit or price-per-gallon of gasoline).

As per claims **1-4, 7-12, 14-16, 20-25, 29-32 and 34-36,** McCall discloses an

integrated customer reward processing system that includes a retailer computer system

and a fuel dispensing apparatus that can obtain customer identification information, to

allow a retailer to authorize fuel to be dispensed at a discounted unit price in

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accordance with a customer's achievement of predefined purchasing criteria (or **based on one or more predetermined actions-** i.e. the customer's purchase of a quantity of promoted or cross-marketed products exceeds a preset threshold or the customer's spending exceeds a predefined dollar threshold amount). More particularly, a retailer computer system is provided that implements customer rewards and includes a database that creates and maintains records associated with customers that make purchases at an associated store. The reward system will track the customer purchases and compare them with predefined criteria to determine when a fuel discount is to be provided. These predefined criteria may include whether the customer purchased items from a group of designated products (e.g. promotional items), **exceeded a quantity threshold**, a dollar value **threshold,** purchases made on specific dates, or the like (determining accumulated discounts for an identified customer based on one or more predetermined actions). When a customer meets one of the predefined criteria, the reward system will authorize a fuel discount (at a participating gas station facility) and provide the customer with a mechanism, such as a bar code printed receipt (printed coupon), **a magnetic stripe card (bar coded card)**, an authorization code or the like, to obtain the fuel at a discount unit price at the participating gas station.

In general, McCall discloses a system for customer promotion wherein an identified customer may receive a discount on the price per gallon of gasoline if the customer's purchase, during a single transaction or during a certain period **exceeds a predefined quantity or a dollar threshold amount** (Volume purchase condition or predetermined action- See abstract; figs. 9-10. Col. 9: 52 to Col. 10: 37).

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(See abstract; col. 2: 21-67; fig. 9).

Further, FIG. 9, showing a transaction matrix or table, is a more detailed view of

a plurality of fields that may be included in a typical record 208 corresponding to a

particular customer (e.g. A. Smith). As shown in field 300 of FIG. 9, the customer name

is provided along with an identification number. For new customers, or when the system

is first installed, a record will be created when the first item is purchased at retailer's

POS 200. The date of purchase when at least one item was purchased at POS 200 of

an associated retailer is provided in field 302. The dollar value of the purchases is listed

in field 304. Here, retailers may often designate various items to trigger discounts

related to competing or related items. The quantity of these designated or trigger items

that were purchased on each date (if any) are provided in field 306. Field 308 is the total

quantity of items purchased by a certain customer on a specific date. This field, along

with field 304 can be used as a criterion for determining customer loyalty. Field 310 will

include data representing the availability of a fuel discount when a preset threshold

(quantity of items or a dollar amount) is exceeded. The record will be updated in field

312 when a discount is provided (field 314), via a printed receipt or coupon, and actually

used or redeemed by a customer. Fields 316, 318 and 320 provide totals for the dollar

value fields 304, designated items purchased 306 and total quantity 308, respectively

(col. 9: 23 to col. 10: 37).

In addition, at step 404 of fig. 10, a determination is made as to whether the

current purchases will cause a fuel discount to be offered. This step may include

determining if the customer has purchased certain designated items that will trigger a

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discount, **whether a total dollar value spent <u>exceeds a predefined threshold</u> and/or if a total quantity of items <u>exceeds a threshold</u>**. If at step 404, it is determined that a fuel discount is available, then at step 405 the server authorizes the discount and sends a signal to the market POS termination 200. At step 406, a bar coded discount **coupon (printed coupon),** alphanumeric authorization code, updated **magnetic card or other mechanism is provided to the customer.** At step 407, server 204 sends an authorization signal to PIB 216, which then provides corresponding commands to controller 26 in pump 112. The signal from server 204 will include an authorization code and a discount amount. The customer then inputs the fuel discount authorization code from POS 200 at pump 112 in step 408. More particularly, the customer **may swipe a magnetic card or** scan in a bar code from a receipt (printed coupon) **(having encoded thereon accumulated discount information such as $0.10 per gallon plus $0.15 per gallon, which yield to a total of $0.25 (accumulated discount) per gallon as shown in the discount amount field 314 of fig. 9**; col. 10: 13-31) or **key in an alphanumeric code at I/O 212 of pump 112 (at a participating gas station).** After the customer authorization code is entered the process then compares (step 408a) the authorization code from server 204 with the code from the customer and if a match exists then proceeds to step 409 and adjusts the price of the fuel to be dispensed for this transaction (redemption process) in accordance with the discount information. At step 410, **pump controller 26 notifies gas station POS 34 of the adjusted fuel price such that the fuel sales records will be in order and to ensure that the customer is correctly charged the discounted fuel price based on the price-per-unit or PPU or**

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price-per-gallon or PPG discount. Next, at step 411 pump controller 26 notifies

server 204 of completion of the transaction for discounted fuel and re-adjusts the

fuel price to its normal level by mapping the discount amount to zero (reset the

price-per-gallon on the fuel pump screen or display to its street or normal price at the

conclusion of the redemption process). **Server 204 then updates the customer record**

208 in database 206, storing the customer's records and discount information, to

reflect that the discount was used.

Additionally, the purchase of fuel at full price could also be used to trigger

discounts on items in the retail store having POS 200. For example, when a customer

purchases fuel **a signal can be sent from controller 26 to PIB 216 to server 204,**

which then updates and analyzes the customer's record (or creates a record if none

exists). **If the customer has purchased fuel in excess of a predetermined value**

(dollar threshold exceeding) or quantity (gallons) threshold, then a signal can be

sent from server 204 back to controller 26 via PIB 216 of fig. 8 to authorize a

discount for this customer on merchandise to be purchased at a participating

store In other words, a bar coded receipt (coupon) can be printed by printer 214

that the customer can then take to the participating store and redeem for a

discount on one or more items purchased at a POS 200. When purchased, a signal

will be sent to server 204 of fig. 8 and the customer record will be updated accordingly.

Finally, McCall teaches a fuel dispenser 12 of fig 1 having conventional graphics

displays 20a, 20b and a reader device 22 embodying features of the present system.

The graphics **displays** 20a and 20b each includes a large, conventional, LCD panel for

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showing text and numerals, such as a price 24 that corresponds to an amount of fuel

dispensed, or other customer-related messages (col. 3: 48-54).

(Receiving a signal from a POS indicating that an identified customer is

conducting a transaction and deciding whether or not the customer's purchase has

exceeded a preset threshold value, then sending a signal to a printing device to print a

coupon for the customer. If no threshold is achieved during this transaction, then the

customer's purchase data are recorded and accumulated over a certain period of time

to decide in the next transaction if it is time to reward a customer. The process of

displaying a threshold exceeding and other information on a screen or GUI is shown in

fig. 9. The step of calculating a subtotal and comparing it to the customer's purchase

amount or transaction value to thereby determine if it is time to reward the customer is

implicitly taught in the reference).

        (Figs. 8-10; col. 8: 5 to col. 12: 25)

        As per claims 1, 4, 9, 22, 25 and 31, although McCall discloses displaying

transaction information, such as a price-per-gallon of gasoline and other textual

messages, on a fuel dispenser screen to a user during a transaction at a gas station,

McCall does not expressly teach presenting to the user, during the fuel transaction, the

accumulated discount information (discount level) and receiving, in response, the user's

choice or election to redeem or not to redeem at least a portion or a fraction of the

presented accumulated discount or a price-per-unit discount.

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However, it is common practice in the art to allow a user to access or view, online
or offline or during a transaction, accumulated discount information or accumulated
points (discount level) stored in a database under the user's account. For instance, a
user is permitted to access or view his accumulated points stored in a database under
his name or account during an online transaction at a participating retailer and wherein
the user may choose to redeem his accumulated points displayed on a screen or a
portion or a fraction thereof (See at least the Ikeda's reference featured in the
conclusion section).

("Official Notice")

Thus, an ordinary skilled artisan would have been motivated at the time of the
invention to incorporate the above disclosure into the McCall's system so as to present
or display to a user on either display 20a or 20b, coupled to the fuel dispenser 12,
during a gasoline transaction at a participating retailer the user's accumulated discount
data or accumulated points or a specific or accumulated price-per-gallon (PPG or PPU)
discount on gasoline ($0.10+$0.15=$0.25 as show in fig. 9), stored in a database under
the user's account, and to allow the user to elect or choose in real-time, if desired, to
use or redeem a portion/fraction of the displayed accumulated discount or simply to
allow the user to use a specific PPG discount ($0.10/GAL) and wherein the value of the
fuel transaction is impacted by the user's choice or election to use or not to redeem a
portion of the displayed accumulated discount or accumulated price-per-gallon discount,
thereby making the system more flexible and interactive by enabling the user to view

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and access his accumulated discount or accumulated price-per-gallon (PPG) discount ($0.10+$0.15=$0.25 as show in fig. 9), stored in a database under his account, displayed on a fuel dispenser screen at a POS or gas station upon receiving an input from the user during a transaction before the user makes a purchase or dispenses fuel, which may be discounted based on the user's decision to redeem or not to redeem a portion of the displayed accumulated discount or a PPG discount ($0.10/GAL as featured in fig.9), while rendering the system more appealing and user-friendly to the user who now can decide in real-time and an interactive manner to partially or fully redeem the total accumulated discount or accumulated PPG discount ($0.10+$0.15=$0.25 as show in fig. 9) as presented on the screen during the transaction and wherein the user's account (account balance) is updated in the database to reflect the transaction including any redemption thereof.

Generally, McCall discloses determining accumulated discount information **in a retailer computer system**, at least at Fig. 2 (server processing system 204), and col.8, ln 19-32, col 9, ln7-21. Further, that customer information is obtained **at a gasoline pump** when a customer initiates the purchase of gas is disclosed at least at Fig. 1, col. 3, l 37-65, col. 8, ln 37-63.

Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 are rejected under are rejected under 35 U.S.C. §103(a) as being unpatentable over Nicholson

(In the following action, allowing the customer to redeem a portion of his accumulated discount stored in a database reads on allowing the customer to

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elect a discount or a portion of the stored accumulated discounts and providing

the elected discount or redeeming the portion of the discounts, if any, applicable

on the price-per-unit or price-per-gallon of gasoline).

As per claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36, Nicholson discloses a

method and a system for providing multiple level price-per-unit (PPU) discounts on

gasoline to a customer who purchases at least one cross-marketed product

(predetermined action). The customer is awarded a first PPU discount on the gasoline

based on a purchase by the customer of a first cross-marketed product (a first

predetermined action) and is awarded a second PPU discount based on the purchase

of a second cross-marketed product (a second predetermined action). The first discount

is then added to the second discount to determine a total accumulated PPU discount on

gasoline available at a participating retailer and a frequent shopper's card or a paper

receipt is provided to the customer with a customer identification and a transaction

identification encoded in a bar code thereon. **The total accumulated discount is**

stored in a discounts issued database. The customer then scans the encoded bar

code, printed on the receipt, with a bar code scanner or **swipes the shopper's card at**

a gasoline dispenser to redeem the total accumulated discounts or a portion thereof.

The total discount is retrieved from the remote discounts issued database by the gas

station or fuel dispenser system and the gasoline station then reduces the price-per-

unit-volume of the gasoline by an amount less than or equal to the total accumulated

discount in the issue database. **When the customer completes the gasoline**

purchase, a value of the total discount redeemed is determined and stored in a

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discounts redeemed database. Portions of the discount redeemed are then allocated

to vendors of the first and second cross-marketed products according to predetermined

criteria (according to one or more predetermined actions).

In general Nicholson discloses a method and a system for providing

multiple level discounts on the price-per-unit (PPU) of a consumable good sold in

multiple units to a customer who purchases a plurality of cross-marketed

products comprising the steps of awarding a first discount on the PPU of the

consumable good or fuel to the identified customer in response to a purchase by

the customer of a first cross-marketed or cross-selling non-fuel product,

awarding a second discount on the PPU of the consumable good or fuel to the

customer in response to the purchase by the customer of a second cross-

marketed non-fuel product, adding the first discount to the second discount to

determine a total accumulated **discount on the PPU of the consumable good or**

fuel, storing the total accumulated discount data in a database for later

retrieval/validation and awarding the total discount to the customer, wherein the

process of awarding the total accumulated discounts to the identified customer

includes providing the total accumulated discounts to the said customer in the

form of electronic coupon via a plurality of mechanisms, having the total

accumulated discount data encoded thereon, consisting of:

a paper receipt with the unique customer identification and discount

identification encoded in a bar code imprinted thereon;

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a paper receipt with the unique customer identification and discount identification encoded in a code number imprinted thereon;

a frequent shopper card with the unique customer identification and discount identification magnetically encoded thereon;

a prepaid card with the unique customer identification and discount identification magnetically encoded thereon;

a credit card with the unique customer identification and discount identification magnetically encoded thereon;

a radio frequency identification (RFID) device with the unique customer identification and discount identification encoded in a RF transmission; and

a smart card.

The identified customer takes at least one of the mechanism, having the accumulated discount information encoded thereon, to a participating gas station for redemption, wherein the gas station system establishes a remote connection with the database to validate the discount data.

Further, Nicholson teaches a controller that sends a set discount message 29 of fig. 1 to the dispenser and includes instructions to adjust the <u>displayed</u> price per gallon by the amount of the total PPU discount, and to set the maximum limit on the number of gallons that can be purchased at the discounted price. Alternatively, a maximum discount value can be set. **If the calculated total PPU discount is** greater than the

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PPU displayed on the gasoline dispenser, the controller sets the displayed PPU price to

zero (0). On dispensers that will not display a PPU price of zero, **the lowest price,**

which the dispenser will display is shown to the customer (Col. 6: 37-49).

Additionally, it is determined, at step 46 of fig. 3A, whether or not the calculated total

PPU discount is greater than the PPU displayed on the gasoline dispenser. If not, the

method moves to step 47 and subtracts the total PPU discount from the displayed PPU

and then displays a new discounted PPU on the dispenser screen at 48 **where it is**

viewed by the customer. However, if the calculated new discounted PPU is less than

or equal to zero, the discounted PPU is then set to zero (0) at 47 and is displayed on

the dispenser **screen to the customer.** If the PPU is not zero at 48, the method moves

to step 49 where the display instructs the customer to enter payment, which may be a

credit card or dollar bills. If the PPU is zero, the method moves directly to step 50 where

the customer's record is locked, and a timer is started at 51. The method then moves to

FIG. 3B, step 55 (Col. 7: 22-35).

In short Nicholson discloses displaying to the customer on the fuel dispenser

display, during a fuel transaction, discount information related to the PPU discount

applied to the current fuel transaction and the maximum number of gallons of gasoline

that can be purchased at the displayed PPU discount.

Further, that customer identification information is obtained when a customer

initiates the purchase of gasoline **at a gas pump** is disclosed at least at col. 3, L60-65,

col. 7, ln 1-12 (encoded bar code is read by bar code reader at the gasoline dispenser).

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That accumulated discount information is determined in a **retailer computer**

system is disclosed at least at Fig. 1 (controller 13 associated with HVR discounts

database, col. 5, ln 13-35, col. 6, ln 50-65, col. 7, ln 12-21).

(See claims 1 and 5 of the current reference).

See abstract; col. 2: 40 to col.3: 31.

As per claims 1, 4, 9, 22, 25 and 31, although Nicholson discloses displaying

discount information, such as the street price-per-gallon of gasoline, the customer's

unique PPU discount based on the grade of fuel selected by the customer, the number

of gallons of gasoline that can be dispensed at the currently displayed unique PPU

discount and other relevant textual messages, on the fuel dispenser screen to the

customer or user during a transaction at a gas station upon receiving an input from the

customer or upon detecting the presence of the identified customer at the pump (fig. 3A

blocks 41 and 42), however, Nicholson does not expressly teach enabling the user or

customer, during the fuel transaction, to choose or elect to redeem or not to redeem at

least a portion or a fraction of the presented accumulated discount or total price-per-unit

(PPU) discount in response to the display.

However, it is common practice in the art to allow a user to access or view, online

or offline or during a transaction, accumulated discount information or accumulated

points (discount level) stored in a database under the user's account. For instance, a

user is permitted to access or view his accumulated points stored in a database under

his name or account during an online transaction at a participating retailer and wherein

the user may choose to redeem his accumulated points displayed on a screen or a

portion or a fraction thereof (See at least the Ikeda's reference featured in the

conclusion section).

("Official Notice")

Thus, an ordinary skilled artisan would have been motivated at the time of the

invention to incorporate the above disclosure into the Nicholson's system so as to

enable the user or customer, during the fuel transaction, to choose or elect to redeem or

not to redeem at least a portion or a fraction of the accumulated discount or total price-

per-unit (PPU) discount and/or a subset of the number of gallons of gasoline that can be

dispensed at the currently calculated PPU displayed on the fuel dispenser screen upon

receiving an input from the identified customer, wherein the value of the fuel transaction

is impacted by the user's choice or election to use or not to redeem a portion of the

displayed accumulated discount or accumulated price-per-gallon discount, thereby

making the system more flexible and more interactive by enabling the user to view and

access his accumulated discount or calculated total price-per-gallon (PPU) discount

displayed on the fuel dispenser screen at the POS or gas station upon receiving an

input from the user during a transaction before the user makes a purchase or dispenses

fuel, which may be discounted based on the user's decision to redeem or not to redeem

a portion of the displayed accumulated discount or total PPU discount and/or a subset

of the number of gallons of gasoline that can be dispensed at the currently calculated

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PPU, while rendering the system more appealing and user-friendly to the user who now can decide in real-time and an interactive manner to partially or fully redeem the total accumulated discount or accumulated PPU discount and/or a subset of the number of gallons of gasoline that can be dispensed at the currently calculated PPU as presented on the screen during the transaction and wherein the user's account (account balance) is updated in the database to reflect the transaction including any redemption and/or residual discount thereof.

Conclusion

Although the following references were not used in the Office Action, they were highly considered by the Examiner. Applicants are further directed to consult these references.

USP 6,152,591A to McCall discloses a system for providing a fuel dispenser with a graphics interface. The system easily retrofits onto an existing, conventional fuel dispenser. The system likewise allows a customer to interact with commercials/advertisements as well as the instructional interface. The system includes a video display terminal, a touch screen, a multimedia controller, and a pump interface. A conventional fuel dispenser may be readily retrofitted with the system because the multimedia controller and pump interface communicate with a customer-activated terminal already on the conventional fuel dispenser. The system also operates in a manner to determine if the customer has used the fuel dispenser before, and if not, displays additional instructions and videos to explain operation of the fuel dispenser. The system also allows the customer to select between different categories of

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commercials in order to purchase amenities. Furthermore, the system provides a

manner in which to reward the customer for such things as frequent purchases and to

include all of the purchases on a single receipt.

US Patent 6, 142, 371A to Omeda discloses a customer service system having a

point value and discount rate.

US Patent 5,537, 314 to Kanter discloses a referral recognition system having a

point and discount conversion tables.

US Patent 6,003, 013 to Boushy discloses a casino incentive reward program for

providing reward points to a player utilizing casino game machines via a network.

US Patent US 6,741,968 B2.to Jacoves discloses, among other things, a method

of and a system for processing a customer's transaction at a POS and for issuing a

discount on the price-per-gallon (PPU) of gasoline to the customer for purchasing a

threshold or a certain quantity of triggering or promo products or items during a

transaction. Indeed, transaction information is processed through a clearinghouse

wherein a rewards provider (2402) assembles the reward program information and

forwards it to a store chain central office (2404) for implementation. The store chain

central office (2404) then transmits information to one or more of its stores (2406). The

store (2406) provides a reward to a customer (2408) based upon the purchase of

discounted triggering items. Upon meeting the requirements for redeeming a reward,

the customer (2408) redeems the reward at a gas station (2410) for gasoline.

Redemption information received by the central office (2404) in the form of electronic

files and redemption slips are then sent to the clearinghouse (2412) for processing. The

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clearinghouse (2412), receiving the information on a daily basis as bundled sums,

processes the redemption information by invoicing respective manufacturers (2416) for

products sold, and making payment to the stores (2406) of fig. 24 for the costs of the

discount triggering items which were sold. See abstract; figs. 1 and 24.

US Patent 5,937,391A to Ikeda discloses a point-service system (incentive

reward program) for issuing points to a customer for purchases made at various stores

or shops within an online shopping mall (first reward program) comprising a points

issuing unit 1 of fig. 1 for issuing points based on purchase amounts of the customer or

participant (col. 3: 52-53), a points management unit 2 of fig. 2 for storing the points

(total points or base points) accumulated by the customer and a points redeeming unit 3

of fig. 1 for reducing a purchase amount of the customer upon redeeming points at any

participating store within the mall. This system shortens the time from issuing points to

redeeming points. In one embodiment, Ikeda discloses a service system wherein a

specific or registered customer makes a request to buy goods (participant's action) from

a home page of an online shopping mall and in response to this request, the service

system causes the number of effective points (base points) accumulated by the

customer and issued by a plurality of shops for each purchase made at each respective

shop to be displayed on the customer's terminal or participant's unit, subsequent to

identifying the customer or participant using the customer's or participant's ID, by

referring to the data of each shop forming part of the online shopping mall. If the

customer still decides to order a product (participant's action), he can click on a

shopping button associated with one of the displayed shops to subsequently access an

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order button and. Hence, the point-service system or service system linked to a web

server of the online shopping mall is activated to issue points or redeem points at the

customer's request or instructions when he inputs an order (see abstract; col. 2: 10-67;

figs. 1-19). It is to be understood that a customer can explicitly or implicitly make a

request from the point-service system to buy a product from a participating shop,

redeem points or simply query the point-service system database for the effective points

(base points) accumulated to date (col. 5: 22-38; col. 4: 34-40; col. 10: 55 to col. 11: 3).

Moreover, the points issuing unit issues points based on the purchase amount of

a customer or participant at an online shopping mall. The point issuing unit issues points

based upon, for example, input information such as the name of the shop and the

purchase amount and the points issue ratio set for each shop. For example, the points

issue ratio is indicative of how many points are issued when a customer or participant

spends 100 Yen at a shop (1 point for every 100 Yen spent). The points issue ratio can

also be set to a value larger than a normal value in a special campaign period such as

an end-of-year sales period (col. 2: 28-37).

In addition, a points redeeming ratio performs a points redeeming process by

reducing the purchase amount for a particular customer or participant during a

transaction at a specific shop, based on the number of total points (base points or

effective points) accumulated thus far throughout the system or at that shop, *wherein*

the customer or participant chooses to redeem some of his points (base points) at the

specific shop and wherein each participating shop has a different points redeeming ratio

(providing a second reward program that assigns a redemption rate for a customer's

transaction based on the redemption points ratio available at the shop, wherein the

customer's program points are functions of the effective or base points issued and the

redemption points ratio set for the shop). For example, shop A of fig. 9 reduces during a

certain period of time the customer's purchase by 1 Yen for every 1 point redeemed,

hence a 1:1 ratio or redemption rate. Like the points issue ratio, the points redeeming

ratio or redemption rate for a specific period, such as an end-of-year sales campaign,

can be set to a value higher than a normal period (increasing or adjusting or providing a

higher redemption points ratio or redemption rate to the customer if the customer

performs an action such as purchasing products at a shop participating in the end-of-

year sales campaign). For instance, 10,000 - 2 indicates that the points issue ratio will

double when the number of accumulated points reaches 10,000 points (2 points for

every 100 Yen spent upon reaching 10,000 effective or base points). Further, the point

redemption ratio or rate for shop F, during a specific period of time, doubles that of the

other shops, thus a 2:1 ratio (2 Yen for every 1 point redeemed) (col. 2: 38-64: col. 3:

62-67; col. 8: 1-23; col. 9: 55 to col. 10: 2). In other words, each specific shop issues

points to a customer or redeems the customer's effective points (base points) during a

purchase transaction in accordance with the points issue ratio and points redemption

ratio set for each specific shop during a specific period of time. **In short, a customer**

can be allowed special services if he buys goods at the same shop (performing

an action), for example shop A, by setting the points redeemed ratio or point

redemption rate for the customer or participant higher than the common points

redeeming ratio of the online shopping mall (adjusting the customer's or

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participant's redemption rate when he performs an action such as patronizing the same shop). Here, it is to be understood that two customers redeeming the same number of effective points or total accumulated points or base points (**action points**) during a purchase transaction (performing the same action) at the same shop or shop A will be assigned two different redemption rates. One customer will receive a standard redemption rate and the other a higher redemption rate for being a loyal customer (col. 11: 50-53).

Ikeda discloses in general a system for distributing points to identified customers who purchase items from a plurality of shops within a mall system, wherein each shop has its own point-issuing ratio (first reward program). The system maintains in a table or database the number of points (base points) accumulated by a customer throughout the mall. Each shop within the mall has its own point-redemption ratio. Moreover, during a transaction involving points redemption at a particular shop, the customer decides to redeem a certain number of points from his total accumulated points or base points for this shop, the system determines in real-time the value of the customer's total points in accordance with the shop point-redemption ratio or individual redemption rate (RR), wherein the customer can receive a higher individual point-redemption ratio if he frequently buys products at the shop or the shop is running a special end-of-the year promotion (determining the participant's redemption rate via a second reward program and adjusting the redemption rate for the customer or participant based on his action (frequently buying at the shop or buying during a special promotional period)-col. 11: 50-53). Additionally, the customer's determined redemption ratio at the shop is

A0600

immediately retrieved (from a storage or a table or database or memory) once the customer or participant logs into the mall and indicates his intention to purchase products from the shop while redeeming a certain number of points for that shop. In short, the participant's or customer's total redeemable points value at the shop is equal to the participant's total points or base points for that shop multiplied by a predetermined ratio or factor (for example 1 Yen for each point or 2 Yens for each point- Col. 8: 1-23; figs. 7-9).

FIG. 18 shows an example of an input screen displayed when the contents of the shop management table shown in FIG. 9 are <u>altered</u> from the server of each shop. On such screens, the server of each shop can be newly set, and the contents of the shop management table can be <u>altered</u> or deleted. Since a considerable loss would be caused by a malicious alteration of the data in the shop management table, <u>security</u> should be provided for the authorization for access to the shop management table.

(Col. 6: 29-38; col. 10: 16-30; col. 10: 55: to col. 11: 62; col. 11: 63 to col. 12: 20; col. 13: 28-32; figs. 6, 9 and 14-15).

<u>Further</u>, a customer opens a home page of the online shopping mall (merchant's site) by inputting in the address field of a local browser a URL associated with the online shopping mall (merchant's site). Then a shopping mall (merchant's site), entered in the system database and <u>linked</u> to the home page of the online shopping mall is displayed. For instance, a hyper<u>link</u> (an affiliated link) or an image map (pictogram...) of a jewelry shop, an apparel shop, a grocery shop, etc. is retrieved and displayed on the home page of the shopping mall (merchant's site). If the customer activates or clicks the

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mouse on one of the displayed hyperlinks or images, related to the different shops or

stores including remote or independent shops, to visit one of his or her favorite shops,

then the names of the goods and their images and prices of the shop are displayed on

the screen. A purchasing operation is performed by clicking with the mouse on the

selected goods and the customer earns points according to the value of the transaction

and the points issuing ratio available at the shop and as determined or computed by the

points management unit linked to the shop even if the shop is remote (i.e. outside the

online shopping mall or when the shop uses its own server to participate in the online

shopping mall and receives a referral therefrom via a hyperlink displayed in the online

shopping mall or merchant's site home page). It is further recognized here that when a

shop (affiliated merchant or shop) is outside the online shopping mall or uses its own

server, a hyperlink or image representing the shop's site is displayed on the online

shopping mall (merchant's site) home page screen for the customer to click and visit the

said shop to conduct a transaction and wherein the shop server is configured to send a

signal to the online shopping mall server (the shop is linked to points management unit

or loyalty server) to provide points to the customer based on the value of the transaction

and the points issuing ratio available at the shop (points allocation condition) and

wherein the earned points are used to increment the identified customer's existing

points (increment a point counter for the customer subsequent to earning points). It is

also understood that each (new) shop or (new) remote shop or (new) affiliated merchant

is registered with the online shopping mall. See Col. 4: 3-14; col. 4: 56-60;figs. 1, 2, 5,

11 and 19).

Additionally, clicking by a customer the mouse on a remote shop (activating the link related to the affiliated merchant and displayed on the online shopping mall or merchant's site home page), which is displayed in the home page of an online shopping mall, but is not entered in the online shopping mall system database (i.e. that the remote or independent shop has its own server and storage means to store product information and receive orders from the customers via the displayed link), can access the home page of the shop (or the shop web site). In this case, the purchase information is simultaneously input to the database <u>linked</u> to the home page of the online shopping mall and the database <u>linked</u> to the home page of the shop. If the shop enters the online shopping mall, the purchase information stored in the database <u>linked</u> to the home page of the shop is also transmitted to the database <u>linked</u> to the home page of the online shopping mall using the existing network transfer command. In this case, the customer can access the home page of the shop from the home page of the online shopping mall, enter a request to receive a point-service from the online shopping mall each time the customer buys goods in the shop, and then use the point-service system even if the customer buys goods directly through the home page of the shop. Furthermore, each shop can easily provide a customer with the latest goods in the shop by constantly updating the database <u>linked</u> to the home page (col. 13: 9-28; fig. 19).

Moreover, FIG. 18 shows an example of an input screen displayed when the contents of the shop management table shown in FIG. 9 are altered from the server of each shop (the point management unit or loyalty server receives a signal from the remote shop sever to provide and store points for the visiting user in accordance with

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the purchase transaction value and the points issuing ratio available at the shop,
thereby updating the points management unit system database). Since a considerable
loss would be caused by a malicious alteration of the data in the shop management
table, security should be provided for the authorization for access to the shop
management table. In other words, the signal or the transmission from the remote shop
server to the online shopping mall server to provide and store points for the visiting
user by the points management unit is performed in a secure manner (encrypted
manner). See col. 12:52-60.

Finally, once logged in and authenticated by entering his password and ID
number (digital identifier), the user's identifier is automatically recorded in a temporary
file (cookie) or registered on the user's computer or equipment memory (RAM)
throughout the browsing session until the user or customer decides to end the session
by leaving the online shopping mall environment or the remote shop site.

US Patent 5,806,045A to Biorge teaches a system for providing incentive credits
(points) to a user or customer participating in one or more promotion programs via a
handheld or portable device (smart card or instrument) 74 for every qualifying
transaction conducted at a participating retailer or provider (merchant) having a
provider device 76 (including a card reader) wherein the value of the incentive credits is
contingent upon the value of a current transaction (credits are computed in function of
the current transaction amount) and wherein the customer's incentive credits are stored
on the memory of the portable or handheld device 74 where they can be retrieved
during a redemption process. At any given time subsequent to storing the incentive

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credits on the customer's handheld device, the customer can take the said device 74 to

the same retailer or another participating retailer or provider to redeem at least a portion

of the incentive credits during a second transaction or a redemption process wherein

the stored incentive credits are transmitted from the customer's handheld device 74 to

the retailer's POS system or base device 72 (during a synchronization process). In

addition, during the redemption process or second transaction (synchronization

process), the retailer's POS system or base device 72 transfers newly earned incentive

credits to the customer's handheld device 74 permanent memory, based on the value of

the second transaction and some other criteria, where they are being added to the

existing credit balance (receiving at a client-user device 74 award transaction data or

award credits during a transaction from a first base device 72 linked to client-user

device or customer device 74 and provider device 76 to form a network or system 70

and wherein the system or network 70 is connected in real-time via a communication

link 112 to a record-keeping facility or central authority or the outside world over a

communications network or the Internet-fig.3; col. 10: 65 to col. 12: 10; col. 13: 4-22;

col. 14.

THIS ACTION IS MADE FINAL. See MPEP §706.07(a). Applicant is reminded

of the extension of time policy as set forth in 37 CFR §1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

A0605

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shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to BENNETT SIGMOND whose telephone number is (571)

270-3414. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00

p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Weiss can be reached on (571) 272-6812. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

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If you would like assistance from a USPTO Customer Service Representative or

access to the automated information system, call 800-786-9199 (IN USA OR CANADA)

or 571-272-1000.

/B.S./
Junior Examiner, Art Unit 3688

/JOHN G. WEISS/

Supervisory Patent Examiner, Art Unit 3688

NOTICE OF APPEAL FROM THE EXAMINER TO THE BOARD OF PATENT APPEALS AND INTERFERENCES	Docket Number (Optional) 076021-00604

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ Signature_____ Typed or printed name _____	In re Application of Russell G. Ross et al.

	Application Number 10/975,277	Filed October 28, 2004

For System and Method of Providing Discounts on the Purchase of Gasoline

Art Unit 3688	Examiner Bennett M. Sigmond

Applicant hereby **appeals** to the Board of Patent Appeals and Interferences from the last decision of the examiner.

The fee for this Notice of Appeal is (37 CFR 41.20(b)(1)) $ 620.00

☐ Applicant claims small entity status. See 37 CFR 1.27. Therefore, the fee shown above is reduced by half, and the resulting fee is: $ _____

☐ A check in the amount of the fee is enclosed.

☑ Payment by credit card. Form PTO-2038 is attached.

☐ The Director has already been authorized to charge fees in this application to a Deposit Account.

☑ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 02-2556 .

☐ A petition for an extension of time under 37 CFR 1.136(a) (PTO/SB/22) is enclosed.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☑ attorney or agent of record. 40,700 Registration number _____ .

☐ attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____

/Philip E. Levy/
_____
Signature

Philip E. Levy
_____
Typed or printed name

(412) 566-6043
_____
Telephone number

February 17, 2012
_____
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☑ *Total of ___1___ forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re PATENT APPLICATION of

Appeal No.	:	(not yet assigned)
Inventor	:	Russell G. Ross et al.
Appln. No.	:	10/975,277
Conf. No.:	:	6022
Filed:	:	October 28, 2004
Title:	:	SYSTEM AND METHOD OF PROVIDING DISCOUNTS ON THE PURCHASE OF GASOLINE
Group Art Unit	:	3688
Examiner	:	Sigmond, B. M.
Docket No.	:	076021-00604

        *   *   *   *   *

April 17, 2012

APPELLANT'S BRIEF ON APPEAL

VIA EFS
Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is an Appeal from the decision of the Examiner dated October 18, 2011, rejecting claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 of the above-captioned application. The claims involved in the appeal are set forth in Appendix 1, which is attached hereto.

Real Party In Interest

The real party in interest is Phoenix Intangibles Holding Company, a corporation organized under the laws of Delaware, having a place of business at Two Greenville Crossing, 400 Kennett Pike, Suite 220, Greenville, Delaware 19807.

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Related Appeals and Interferences

Prior Appeal No. 2009-003447 in the present application (10/975,277) is related to and may directly affect and/or have a bearing on the Board's decision in the currently pending appeal. A copy of the Decision on Appeal in Appeal No. 2009-003447 is provided in Appendix 2[1].

Status of Claims

Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 stand rejected.

Claims 5, 6, 13, 17, 18, 19, 26-28 and 33 have been withdrawn from consideration.

Claim 37-71 have been canceled.

Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 are being appealed.

Status of Amendments

There have been no amendments filed subsequent to final rejection. The claims as they stand on Appeal are contained in the Appendix 1 to this Brief.

Summary of Claimed Subject Matter

The invention as recited in independent claims 1 and 22 of the present application relates to a system 5 and method (Figures 2, 3a and 3b) for providing customers with an ability to purchase gasoline at a discount that may be implemented by a retailer, such as, for example, a grocery store or another high volume retailer, at a retailer location 20. Each customer possesses customer identification information that uniquely identifies the customer to the retailer. Page 11, lines 6-30. In the system 5 and method of the present invention, customers are able to use their customer identification information to both: (i) earn discounts on the future purchase of gasoline when certain discount earning actions, such as purchasing a certain dollar value of items over time, are performed at the retailer location 20, and (ii) later choose to redeem the discounts that

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[1] Applicants incorporate herein by reference the arguments made in support of patentability of Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 that were presented in both Applicants Appeal Brief and Reply Brief filed in Appeal No. 2009-003447 in order to preserve those arguments and issues for any subsequent appeal to the Court of Appeals for the Federal Circuit or any civil action in federal district court should such actions become necessary.

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have been earned and accumulated over time at the time that the customer purchases gasoline at a gas station location 45. Page 11, line 6 to page 19, line 20, Figures 2, 3a and 3b. The total discounts that have been accumulated over time by each customer are stored in a centralized manner in a database 30 (which is operatively coupled to a main server 25) in association with the customer identification information of each customer. Page 9, lines 24-26, page 10, lines 25-27, page 12, lines 19-30, page 13, lines 15-20, page 14, lines 16-20, Figure 2, step 130. After the purchase of gasoline has been initiated at the gas station location 45, each customer may gain access through the main server 25 to his or her accumulated earned discount (i.e., the total discount currently associated with the customer) stored by the database 30 and be presented with a currently available discount level at the gas station location 45. For example, the currently available discount level may be displayed to the customer on a display which forms a part of the gasoline pump 40 after the customer has initiated the purchase of gasoline at the gas station location 45. Page 16, line 12 to page 17, line 24, Figure 3a, steps 150-175. In this manner, the customer is able to see what discount is available to them before deciding whether to actually take/use any discount amount. After being presented with the currently available discount level, the customer may then either (i) elect not to take a discount at that time even though a discount is available, or (ii) elect to take a discount at that time equal to some elected discount level. If the former election is received, no discount is provided to the customer on the purchase of gasoline at that time. If the latter election is received, then the customer is provided with a discount on the purchase of gasoline equal to the elected discount level. Page 17, line 22 to page 18, line 19, Figure 3b, steps 180-205.

Grounds of Rejection to be Reviewed on Appeal

Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over either United States Patent No. 6,321,984 to McCall et al. (the "McCall patent") or United States Patent No. 6,332,128 to Nicholson (the "Nicholson patent").

Argument

Rejections under 35 U.S.C. § 103 over the McCall patent or the Nicholson patent

Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36

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Claim 1 recites a method of providing a customer with an ability to purchase gasoline at a discount including steps of:

> obtaining said customer identification information when said customer initiates the purchases of gasoline at a gasoline pump;

> accessing said stored accumulated discount information from said database using said customer identification information;

> determining an available discount level based on said accumulated discount information that is accessed;

> presenting said available discount level to said customer;

> receiving from said customer in response to said presenting step either an election not to take a discount or an election to take a discount equal to an elected discount level;

> providing no discount to said customer on said purchase of gasoline if said election not to take a discount is received; and

> providing said customer with a discount equal to said elected discount level on said purchase of gasoline if said election to take a discount equal to said elected discount level is received.

Similarly, claim 22 recites a system for providing a customer with an ability to purchase gasoline at a discount that includes:

> a computing device located at a gas station location, said computing device being in electronic communication with said main server, said computing device being adapted to: (i) access said accumulated discount information from said main server based on said customer identification information when said customer initiates the purchase of gasoline at said gas station location, (ii) determine an available discount level based on said accumulated discount information that is accessed, (iii) cause said available discount level to be presented to said customer, (iv) receive from said customer in response to said available discount level being presented to said customer either an election not to take a discount or an election to take a discount equal to an elected discount level, (v) provide no discount to said customer on said purchase of gasoline if said election not to take a discount is received, and (vi) provide said customer with a discount equal to said elected discount level on said purchase of gasoline if said election to take a discount equal to said elected discount level is received.

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The McCall patent discloses a system for allowing a retailer to provide discounts on the purchase of fuel based on the achievement by customers of certain predefined purchasing criteria. The preferred embodiment of the system is shown in Figure 8 and includes a POS terminal 200 that is located at a retail store location. The system also includes a server 204 that is coupled to the POS terminal 200. A database 206 is linked to the server 204 and includes multiple customer records 208. As seen in Figure 9, each record 208 in the database 206 relates to the purchasing activities of a particular customer and may, if appropriate, include information relating to fuel discounts that were earned by the customer on a number of different dates.

In operation, when a customer purchases items at the retail location, data relating to the purchased items is entered at the POS terminal 200, such as by reading a bar coded UPC symbol provided on the items. In addition, information that identifies the customer is also entered at the POS terminal 200, such as by using a member club card, personal identification number (PIN), or the like. The data relating to the purchased items and the information that identifies the customer are then provided to the server 204 by the POS terminal 200. The server 204 then determines whether the current purchases are sufficient to cause a fuel discount to be earned. This step may include determining if the customer has purchased certain designated items that will trigger a discount, whether a total dollar value spent exceeds a predefined threshold and/or if a total quantity of items exceeds a threshold. If it is determined that the customer has not yet earned a fuel discount, then no further action is taken. However, if it is determined that a fuel discount is available, then the server 204 enters information into the customer's database record 208. The server 204 then sends a signal to the POS terminal 200 which, in effect, reflects that the discount was earned and causes the POS terminal 200 to provide to the customer a mechanism for redeeming that particular discount (i.e., the one that was earned that day based on the particular purchases made) at the time of purchasing fuel. The McCall patent states that the mechanism that is provided to the customer may be a receipt having a bar code printed thereon that includes an authorization code for the particular discount, a card having a magnetic stripe thereon wherein an authorization code for the particular discount is magnetically encoded on the stripe, or an alphanumeric authorization code for the particular discount provided to the customer that is to be keyed into the pump by the customer. When the customer wishes to redeem an earned discount when purchasing fuel, the customer must utilize a particular discount mechanism associated with a particular earned discount. Specifically, the customer must input a

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particular discount authorization code by scanning in a bar code from a receipt, swiping a magnetic card, or keying in the alphanumeric authorization code at the pump, whichever the case may be. After the authorization code is entered, it is compared to an authorization code stored at the pump. If a match exists, the price of the fuel is then, without any further interaction with the customer, automatically adjusted in accordance with the particular discount. In other words, after the purchase of fuel is initiated, the discount is automatically applied and the customer is not given a chance to see what discount is available before making a decision as to whether to actually take a discount.

The Nicholson patent discloses a system for providing discounts on the purchase of gasoline based on the purchase of one or more cross marketed products from a high volume retailer (HVR). The system includes an HVR POS terminal 11, a gas station 12, and a controller 13 that is associated with an HVR discounts issued database 14, an HVR discounts redeemed database 15, and a residual value database 16. When a customer purchases items from the HVR, the HVR POS terminal 11 determines which purchases qualify for a price-per-unit (PPU) discount on gasoline. A total PPU discount for that particular purchase is then calculated by adding each individual PPU discount for which the customer has qualified. The HVR POS terminal 11 then sends a discount issued message 22 to the controller 13. When received, the information in the discount issued message 22 is stored in the HVR discounts issued database 14. In the main embodiment, the HVR POS terminal 11 then prints a receipt for the customer that includes an encoded customer identification and the transaction identification associated with the just issued discount. The transaction identification is, in this main embodiment, encoded in a bar code provided on the receipt. According to the Nicholson patent, the transaction identification for the particular discount may, alternatively, be provided to the customer in other ways (other than on a receipt), including by being transferred to an RFID device, by being magnetically encoded onto a card having a magnetic stripe, or by simply being provided to the customer in the form of an alphanumeric code.

When the customer wants to redeem a particular discount that was earned, the customer takes the receipt to the gas station 12 and scans it using a bar code scanner provided at the pump. This causes the pump to send a message to the controller 13 that includes the data scanned from the customer's receipt. The controller 13 validates the request to redeem a particular discount by comparing the scanned data to data that is retrieved from the HVR discounts issued database 14.

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If a match is found, the controller 13 then determines an adjusted PPU price by subtracting the PPU discount taken from the matched record from the normal price of the gasoline. The controller 13 then automatically, and without any further interaction with the customer, adjusts the price at the gasoline pump so that the customer may pump gasoline at the discounted price. In other words, after the purchase of gasoline is initiated and the data is retrieved from the HVR discounts issued database 14, the discount is automatically applied and the customer is not given a chance to see what discount is available before making a decision as to whether to actually take a discount.

As is apparent from the foregoing, neither the McCall patent nor the Nicholson patent disclose a system or method for providing a customer with the ability to purchase gasoline at a discount that, after the purchase of gasoline has been initiated by the customer, includes steps of "determining an available discount level based on said accumulated discount information that is accessed", "presenting said available discount level to said customer", "receiving from said customer in response to said presenting step either an election not to take a discount or an election to take a discount equal to an elected discount level", "providing no discount to said customer on said purchase of gasoline if said election not to take a discount is received", and "providing said customer with a discount equal to said elected discount level on said purchase of gasoline if said election to take a discount equal to said elected discount level is received" as recited in claim 1 and, in a similar manner, in claim 22. This fact has been acknowledged by the Examiner. Specifically, on page 14 of the October 18, 2011 final Office Action, the Examiner states that the "McCall does not expressly teach presenting to the user, during the fuel transaction, the accumulated discount information (discount level) and receiving, in response, the user's choice or election to redeem or not redeem at least a portion or a fraction of the presented accumulated discount ...," and on page 14 of the October 18, 2011 final Office Action, the Examiner states "Nicholson does not expressly teach enabling the user or customer, during the fuel transaction, to choose or elect to redeem or not redeem at least a portion or a fraction of the presented accumulated discount ... in response to the display." The Examiner, however, states that it would have been obvious to one of ordinary skill in the art at the time of the presnt invention to modify either the McCall patent or Nicholson patent to include the missing features of claims 1 and 22. Applicants respectfully disagree.

It has long been held that so called "secondary considerations" of nonobviousness, such as commercial success, long-felt but unsolved needs, failure of others, and unexpected results, must be considered by the examiner prior to reaching a conclusion on obviousness/nonobviousness. *Demaco Corporation v. F. Von Langsdorff Licensing Limited*, 851 F.2d 1387, 1391 (Fed. Cir. 1988); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 716 F.2d 281,306, (Fed.Cir. 1985), *cert. denied*, 475 U.S. 1017, 106 S.Ct 1201, 89 L.Ed.2d 315 (1986); MPEP §716.01(a). In fact, the Federal Circuit has stated that:

> Indeed, evidence of secondary considerations may often be the most probative and cogent evidence in the record. It may often establish that an invention appearing to have been obvious in light of the prior art was not. It is to be considered as part of all the evidence, not just when the decision maker remains in doubt after reviewing the art.

Demaco, 851 F.2d at 1391, quoting *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538-39 (Fed. Cir. 1983). The reason that secondary considerations are given such weight is "that they provide objective evidence of how the patented device is viewed in the marketplace, by those directly interested in the product." *Demaco*, 851 F.2d at 1391.

Furthermore, when it is asserted "that commercial success supports [a] contention of nonobviousness, there must of course be a sufficient relationship between the commercial success and the ... invention. The term 'nexus' is often used, in this context, to designate a legally and factually sufficient connection between the proven success and the ... invention, such that the objective evidence should be considered in the determination of nonobviousness." *Demaco*, 851 F.2d at 1392; MPEP §716.01(b). Such a nexus "is generally made out when the [applicant] shows both that there is commercial success and that the thing (product or method) that is commercially successful is the invention disclosed and claimed in the [application]." *Demaco*, 851 F.2d at 1392.

The Applicants have, in the present application and pursuant to 37 C.F.R. §1.132, submitted: (i) the Affidavit of John Lucot (hereinafter the "First Lucot Affidavit"), and (ii) the Second Affidavit of John Lucot (hereinafter the "Second Lucot Affidavit"), which together demonstrate the tremendous commercial success of the invention claimed in the present application. The First Lucot Affidavit and the Second Lucot Affidavit are attached hereto at Appendix 2.

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In particular, Giant Eagle, Inc., the parent and exclusive licensee of the assignee of the present invention, provides a fuel discount program known as fuelperks!® which meets the limitations of claims 1 and 22 of the present application. First Lucot Affidavit, ¶¶7-9. The fuelperks!® program has proven to be tremendously successful in driving traffic to Giant Eagle's stores, and Giant Eagle has seen an overall increase in gross sales of 5-6% that it attributes directly to the fuelperks!® program. First Lucot Affidavit, ¶10. The Giant Eagle fuelperks!® program is also extremely popular with its customers, as evidenced by the fact that that during Fiscal year 2009, 2,576,123 unique households received discounted fuel through the fuelperks!® program and $282,000,000 worth of free fuel was awarded to customers through the fuelperks!® program. First Lucot Affidavit, ¶11.

In addition, as recited in claims 1 and 22, the fuelperks!® program has an election option at the pump wherein the customer may, after being presented with the current available discount, elect whether to use that discount in the current fuel purchase transaction, or instead save the discount for additional accumulation and later use. This election option has proven to be very popular with and important to Giant Eagle's customers, and has been a key factor in making the fuelperks!® program such as success. First Lucot Affidavit, ¶¶12-19. For example, Giant Eagle has learned that the goal of many customers is to earn enough of a total price per gallon discount to be able to get a free tank of gas, and that therefore many customers will accumulate their earned discounts over time (i.e., not use them at each fuel purchasing transaction) in order to save for the free tank. In order to do so, customers use the election option and elect <u>not</u> to use their then available discount if it does not equal the current per gallon price of gasoline. First Lucot Affidavit, ¶¶12. The popularity of this election option has been confirmed by Giant Eagle through focus groups where customers have specifically stated that they like having the ability during a particular fuel purchasing transaction to choose to either use (redeem) their accumulated fuelperks!® discount or instead not redeem and continue to save their accumulated fuelperks!® discount so that additional discount amounts can be earned toward a free tank of gas. Example statements include "I like having the choice to use my discounts right away or save them once I have a larger discount" and "The fuelperks! program is great because you can accumulate your discounts to get a free tank of gas!" First Lucot Affidavit, ¶13 and Exhibit A thereto (which includes many other similar statements). The evidence also shows that customers are in fact frequently using the election option to elect <u>not</u> to use discounts until they have accumulated to

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the point where a free tank of gas may be obtained, as 2,049,814 free tanks of gas were earned by 709,869 customers from September 1, 2008 to August 31, 2009. First Lucot Affidavit, ¶14.

In further support of the conclusion that the at the pump discount election feature of the fuelperks!® program has been one of the major contributors to the tremendous success of the fuelperks!® program, Giant Eagle has found that many customers are not redeeming fuelperks!® discounts immediately after they are earned (e.g., at the next fuel purchase transaction), but instead prefer to accumulate their fuelperks!® discounts to significantly reduce the price per gallon of fuel. More specifically, in the fuelperks!® program, customers need to spend $250 in order to earn a 50 cents per gallon fuelperks!® discount. The data that Giant Eagle has gathered shows that there are significantly more transactions where customers redeem 50 cents per gallon or more in fuelperks!® discounts when purchasing gasoline as compared to the number of transactions where customers purchase non-fuel products totaling $250 or more (September 1, 2008 to August 31, 2009, 1,909,931 non-fuel purchase transactions totaling $250 or more compared to 10,083,941 fuel transactions where a customer redeemed 50 cents per gallon or more in fuelperks!® discounts). This shows that customers prefer to and are in fact choosing to save their fuelperks!® discounts. First Lucot Affidavit, ¶16.

The at the pump discount election feature of the fuelperks!® program gives Giant Eagle's customers the flexibility to choose when to use their earned fuelperks!® discounts based on how much fuel they currently need. For example, if a small amount of fuel is needed, the customer may elect not to use their fuelperks!® discounts, preferring to save them for a situation where they need more fuel (e.g., a full tank). Also, customers that own more than one vehicle have the flexibility to save their fuelperks!® discounts until the vehicle with the larger fuel tank is nearly empty to maximize the amount of fuel they can purchase at a discount. The data collected by Giant Eagle indicates that, on average, customers fill their vehicles with more fuel (a greater number of gallons) during transactions in which they are redeeming earned fuelperks!® discounts as compared to transactions in which they purchase fuel without actually redeeming earned fuelperks!® discounts (January 2009 to March 2009, the average number of gallons pumped in transactions where fuelperks!® discounts were redeemed was 15.97 gallons, and the average number of gallons pumped in transactions where fuelperks!® discounts were not redeemed was 10.08 gallons). Thus, the flexibility provided by the at pump election feature of the fuelperks!® program has proven to be an important feature for Giant Eagle's customers since

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it allows customers to choose when to use their earned fuelperks!® discounts, and has lead to the tremendous success of the fuelperks!® program. This flexibility would not be provided if discounts were automatically applied as soon as the customer scanned their Giant Eagle Advantage Card® at the pump, as is the case with some competing fuel reward programs. First Lucot Affidavit, ¶17.

Thus, the at pump election feature of the fuelperks!® program provides Giant Eagle with a tremendous comparative/competitive advantage over other fuel reward programs that do not offer such a feature, since, as demonstrated above, many customers clearly prefer to use that feature and in fact do make great use of the feature. See *Winner International Royalty Corp. v. Wang*, 202 F. 3d 1340, 1350-51 (patented improvement over the existing "Club" device was a self locking ratcheting mechanism that replaced a key lock, and a survey established that customers viewed the self locking feature as being of value to them and was the reason they purchased the self locking version over the version requiring key locking, even at a higher price); DONALD S. CHISUM, CHISUM ON PATENTS, §5.05[2][f][ii], pp. 5-680 (legally sufficient nexus between commercial success and merits of patented invention may be shown by "evidence that the patented feature yields comparative advantages."). In fact, as demonstrated in the Second Lucot Affidavit, consumers in the markets which Giant Eagle, Inc. serves (western Pennsylvania, Ohio, north central West Virginia, and Maryland) have several choices as to where to do their supermarket shopping, and Giant Eagle has at least thirteen direct competitors in those markets. Second Lucot Affidavit, ¶2. Of those direct competitors, five offer fuel discount programs wherein discounts are earned based on grocery and other sales in the supermarket. Second Lucot Affidavit, ¶3. Thus, it is clear that in the markets relevant to Giant Eagle's supermarket retail business, consumers are not tied to any particular supermarket retailer and/or fuel discount program, but instead are free to choose among a large number of options for their supermarket shopping, including a number of options that offer fuel discount programs that compete with Giant Eagle's fuelperks!® program. In addition, such consumers are free to make their supermarket shopping choice based on any of a number of objective factors that they may deem important, such as price, selection, location, and/or the features of the various fuel discount programs (Giant Eagle's fuelperks!® program is not the only fuel discount program in the relevant markets from which consumers may choose). In this environment of direct competition, Giant Eagle's internal analysis has determined that the fuelperks!® program has lead directly to

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an overall 5% to 6% increase in gross sales for its retail locations (based on sales figures from various retail locations before and after rollout of the program), and that Giant Eagle's relative market share in the retail supermarket business in its markets has grown steadily since 2005 (the fuelperks!® program was initially launched in limited stores in late 2003, and is now active in all Giant Eagle retail locations). Second Lucot Affidavit, ¶¶4-5; First Lucot Affidavit, ¶¶7, 11. This latter fact indicates that consumers are increasingly choosing Giant Eagle over other direct competitors, including some direct competitors that offer competing fuel discount programs.

Finally, the importance of the at pump election feature of the fuelperks!® program to Giant Eagle's customers has increased even more recently with the launch of another program at Giant Eagle known as foodperks!® wherein customers are able to earn discounts toward the purchase of non-fuel products at Giant Eagle supermarket and convenience store retail locations based on the purchase of fuel at Giant Eagle's GetGo® fuel and convenience store locations. To earn foodperks!® discounts when pumping fuel, customers must scan their Giant Eagle Advantage Card® at the pump when initiating the pumping of fuel so that their customer identification number can be obtained and earned discounts can be credited and stored appropriately. Thus, Giant Eagle customers that in the past (prior to the foodperks!® program) may have purchased fuel without scanning their Giant Eagle Advantage Card® when they did not want to redeem fuelperks!® discounts now have an incentive (i.e., the earning of foodperks!® discounts) to scan their Giant Eagle Advantage Card® during every fueling transaction, even if they intend not to redeem fuelperks!® discounts. Without the at pump election feature of the fuelperks!® program, customers would essentially be forced to make an undesirable choice, namely redeem fuelperks!® discounts when they did not want to in order to earn foodperks!® discounts, or lose out on earning foodperks!® discounts so that fuelperks!® discounts will not be redeemed when not desired. Therefore, without the at pump election feature of the fuelperks!® program, the fuelperks!® program would be less popular with customers and therefore less successful for Giant Eagle. First Lucot Affidavit, ¶18.

In summary, Giant Eagle's fuelperks!® program has been and continues to be a tremendous commercial success for Giant Eagle, as it has directly lead to increased customer visits to Giant Eagle retail locations and increased sales which are estimated by Giant Eagle to be 5-6%. During the time that Giant Eagle's fuelperks!® program has been active, Giant Eagle has experienced a steady growth in market share in its relevant markets. This market share growth

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has come at the expense of some direct competitors that offer competing fuel discount programs. Also, a large degree of customer satisfaction with the program can be tied directly to the at pump election feature of the fuelperks!® program.

Furthermore, the Applicants have clearly shown the required nexus between the commercial success described above and the invention since it has been demonstrated that the fuelperks!® program both implements the invention as recited in claims 1 and 22 and has been objectively successful. It has also been shown that the at pump election feature of the fuelperks!® program, recited in claims 1 and 22, has been one of the major contributors to the tremendous commercial success of the fuelperks!® program and therefore the invention. See *Demaco*, 851 F.2d at 1392 (a patentee meets the burden of establishing a *prima facie* case of nexus between commercial success and the merits of the invention by showing that a product or process is commercially successful and is the invention disclosed and claimed; the burden then shifts to the validity challenger to show that the success is due to other factors, such as advertising); *Joy Technologies Inc. v. Quigg*, 732 F. Supp. 227, 237 (D. D.C. 1990) ("a prima facie case of nexus is made out when the patentee shows both that there is commercial success and that the thing that is commercially successful is the invention disclosed and claimed in the patent.").

Moreover, the fuelperks!® program has been recognized by the industry as an innovative program, and has earned at least two industry awards. In an article announcing Giant Eagle as the winner of its Retailer of the Year 2007 award, Grocery Headquarters Magazine stated the following about Giant Eagle's AdvantageCard® loyalty program:"With 3.5 million cardholders, the program can certainly be called a success. But what has taken it to a higher level is adding a gasoline marketing component called Giant Eagle fuelperks! that debuted about four years ago." In addition, based on the fuelperks!® program, Giant Eagle received the IBM Retail Leader Award for Excellence in Loyalty Marketing at the LEAD Marketing Conference in October of 2009. Second Lucot Affidavit, ¶7.

This tremendous commercial success coupled with industry recognition strongly indicates that claims 1 and 22 of the present application would not have been obvious in light of the McCall and Nicholson patents.

Accordingly, the Applicants respectfully submit that claims 1 and 22 are allowable over the cited references. In addition, because claims 2-4, 7-12, 14-16, 20-21, 23-25, 29-32 and 34-36

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depend, either directly or indirectly, from either claim 1 or claim 22, Applicants respectfully submit that they are likewise allowable over the cited references for the same reason.

Summary and Conclusion

Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 are patentable over the cited references.

Therefore, it is requested that the Board reverse the Examiner's rejections of Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 and remand the application to the Examiner for the issuance of a Notice of Allowance for Claims 1-4, 7-12, 14-16, 20-25,29-32 and 34-36.

Respectfully submitted,

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APPENDIX 1 (Claims Appendix)

1.   A method of providing a customer with an ability to purchase gasoline at a discount, said customer having customer identification information, the method comprising:

determining in a retailer computer system accumulated discount information each time: (i) said customer performs at least one of one or more predefined actions, (ii) said customer identification information is received in association with said at least one of one or more predefined actions, and (iii) first information relating to said at least one of one or more predefined actions is received, said accumulated discount information being based on said first information;

storing in a database said accumulated discount information in association with said customer identification information;

obtaining said customer identification information when said customer initiates the purchase of gasoline at a gasoline pump;

accessing said stored accumulated discount information from said database using said customer identification information;

determining an available discount level based on said accumulated discount information that is accessed;

presenting said available discount level to said customer;

receiving from said customer in response to said presenting step either an election not to take a discount or an election to take a discount equal to an elected discount level;

providing no discount to said customer on said purchase of gasoline if said election not to take a discount is received; and

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providing said customer with a discount equal to said elected discount level on said purchase of gasoline if said election to take a discount equal to said elected discount level is received.

2.   The method according to claim 1, said customer having one or more customer identification elements each having said customer identification information associated therewith, wherein said customer identification information is received in association with said at least one of one or more predefined actions as a result of said customer allowing said customer identification information to be obtained using one of said one or more customer identification elements, and wherein said customer identification information is obtained when said customer initiates the purchase of gasoline using one of said one or more customer identification elements.

3.   The method according to claim 2, said one or more customer identification elements being a customer card, said customer identification information being provided on said customer card in bar code form, said customer identification information being obtained by reading said customer identification information from said customer card.

4.   The method according to claim 1, said gasoline having a per-unit price, said elected discount level being a per-unit discount amount, said step of providing said customer with a discount equal to said elected discount level on said purchase of gasoline comprising adjusting said per-unit price based on said elected discount level.

5.   (Withdrawn) A method according to claim 1, said determining step comprising converting said first information into a point value, and deriving said accumulated discount information from said point value.

6.   (Withdrawn) A method according to claim 5, further comprising:

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of : Group Art Unit 3622

Russell G. Ross et al. : Examiner: Jean D. Janvier

Serial No. 10/975,277 : **SYSTEM AND METHOD OF**
: **PROVIDING DISCOUNTS ON**
Filed: October 28, 2004 : **THE PURCHASE OF GASOLINE**

Attorney Docket No. 076021-00604 :

AFFIDAVIT OF JOHN LUCOT

I, JOHN LUCOT, state as follows:

1.   I am Executive Vice President & Chief Operating Officer of Giant Eagle, Inc. (hereinafter "Giant Eagle"), headquartered in Pittsburgh, Pennsylvania.

2.   Giant Eagle is a large regional supermarket and convenience store retailer and distributor with over eight (8) billion dollars in annual sales. Giant Eagle was founded in 1931 and has grown to be the leading supermarket retailer in its region with 158 corporate and 65 independently owned and operated supermarkets in addition to more than 150 fuel and convenience stores (operated by Giant eagle under the GetGo® brand) throughout western Pennsylvania, Ohio, north central West Virginia and Maryland.

3.   I earned a B.S. in Business Administration from Duquesne University in 1979 and a Master's of Business Administration from The University of Pittsburgh in 1987.

4.   I joined Giant Eagle in 1974 as a retail clerk. Upon graduating from Duquesne University, I accepted an executive position in Distribution with Giant Eagle. In 1989, I was promoted to Vice President of Retail Development, and in 1992 I was promoted to Senior Vice President of Retail Development. I became Executive Vice President in 2001, and assumed my current role of Executive Vice President and Chief Operating Officer in 2005. As of March of 2009, I am responsible for the following areas in Giant Eagle: Store Operations (including all banners), Logistics and Distribution,

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Supply Chain, Real Estate, Store Planning & Construction, Merchandising, Marketing & Own Brands, Pharmacy, and Fuel & Convenience.

5.   The assignee of United States Patent Application Serial No. 10/975,277, Phoenix Intangibles Holding Company, is an intellectual property holding company and is a wholly owned subsidiary of Giant Eagle.

6.   Giant Eagle provides a customer loyalty program in which customers are provided with a customer card, known as a Giant Eagle Advantage Card®, which enable the customers to receive discounts on selected products if their Giant Eagle Advantage Card® is presented at the time of purchase. A Giant Eagle Advantage Card® has a customer identification number encoded thereon in the form of an optically readable bar code which links the customer and the card to a particular account and/or record associated with the customer and which may be scanned at the time purchases are made.

7.   Giant Eagle also provides a program known as fuelperks!® which enables customers to earn discounts (price per gallon discounts) on the purchase of fuel that may be redeemed at Giant Eagle's GetGo® fuel and convenience store locations. The fuelperks!® program was initially launched in limited stores in late 2003, and is now active in all Giant Eagle retail locations.

8.   In the fuelperks!® program, and by using their Giant Eagle Advantage Card®, customers are able to earn fuel discounts (price per gallon discounts) based on non-fuel purchases that are made at Giant Eagle supermarket and convenience store retail locations and then redeem those discounts when purchasing fuel at Giant Eagle's GetGo® fuel and convenience store locations. More specifically, when a customer purchases non-fuel items from a Giant Eagle supermarket or convenience store retail location, the customer's Giant Eagle Advantage Card® is scanned at the point of sale in order to obtain the customer's identification number that is encoded on the card. The amount of the discount (the price per gallon discount) that is earned for that transaction is then determined based on the particular purchases that are made. Generally, each customer earns a discount of 10 cents per gallon for every fifty dollars worth of non-fuel items that are purchased. Giant Eagle centrally stores the total price per gallon discount earned by each customer in a centralized database in association with

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each corresponding customer identification number. Each time a new discount is earned, the customer's discount record in the centralized database is updated accordingly (i.e., the total earned price per gallon discount amount is increased by the appropriate amount).

9. When the customer subsequently purchases fuel at a GetGo® fuel and convenience store location, the customer scans the Giant Eagle Advantage Card® at the pump so that the customer's identification number can be obtained. Using the identification number, the customer's current total available price per gallon discount is obtained from the central database and presented to the customer at the pump. The customer is then given an election option at the pump wherein the customer may, after being presented with the current available discount, elect whether to use that discount in the current fuel purchase transaction, or instead would prefer to save the discount for additional accumulation and later use. If the customer elects to use the current available discount, the fuel price is then adjusted accordingly (the displayed price is actually on the pump) and the customer's accumulated discount information stored in the central database is updated to reflect that that discount has been used. If the customer elects not to use the current available discount, no adjustment is made to the customer's accumulated discount information stored in the central database, and additional discounts will continue to accumulate based on future purchases.

10. The fuelperks!® program at Giant Eagle has been an extremely successful marketing tool for Giant Eagle, and has been a proven tool for driving customer traffic to Giant Eagle supermarket retail locations. Our internal analysis has determined that the fuelperks!® program has lead directly to an overall 5-6% increase in gross sales for Giant Eagle supermarket retail locations (based on sales figures from various retail locations before and after rollout of the program).

11. The fuelperks!® program at Giant Eagle is used extensively by and has been extremely well received by our customers. During Fiscal year 2009 (June 29, 2008 to June 27, 2009), 2,576,123 unique households received discounted fuel through the fuelperks!® program. During that same period, Giant Eagle awarded $282,000,000 worth of free fuel to its customers through the fuelperks!® program.

12. We have also been able to determine that many customers like to accumulate their earned discounts over time (i.e., not use them at each fuel purchasing

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transaction), with the goal being to earn enough of a total price per gallon discount to be able to get a free tank of gas (i.e., accumulate a price per gallon discount equal to the current per gallon price of gasoline). In order to accumulate earned discounts for this purpose, customers will, after being presented with the currently available price per gallon discount at the pump, need to elect not to use that discount if it does not equal the current per gallon price of gasoline. From September 1, 2008 to August 31, 2009, 25% of fuel transactions where a customer scanned their Giant Eagle Advantage Card® at the pump ultimately resulted in the customer deciding not to redeem their available discount.

13. Giant Eagle has over the course of the development and implementation of the fuelperks!® program conducted customer focus groups to collect information from customers about how the fuelperks!® program was being received. As part of that process, Giant Eagle personnel collected a large number of customer testimonials relating to the fuelperks!® program. These customer testimonials are recorded and maintained in Giant Eagle's internal marketing records. In many of those testimonials, customers indicated that they like having the ability during a particular fuel purchasing transaction to choose to either use (redeem) their accumulated fuelperks!® discount or instead not redeem and continue to save their accumulated fuelperks!® discount so that additional discount amounts can be earned toward a free tank of gas. A number of those testimonials taken from our marketing records are reproduced in Exhibit A hereto.

14. Giant Eagle's internal records indicate that from September 1, 2008 to August 31, 2009, 709,869 customers earned 2,049,814 free tanks of gas through the fuelperks!® program. This indicates that a large number of customers are in fact frequently choosing to elect not to use discounts until they have accumulated to the point where a free tank of gas may be obtained.

15. Thus, it has become evident to us that this great desire of customers to save earned discounts toward a free tank of gas has been one of the major contributors to the tremendous success of the fuelperks!® program. Accordingly, it has also become evident to us that the at pump election feature of the fuelperks!® program has been one of the major contributors to the tremendous success of the fuelperks!® program.

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16.   Further evidence showing that many customers like to have the ability to elect at the pump not to use their fuelperks!® discounts in order to further accumulate discounts can be found from an analysis of the number of fuel transactions where customers choose to redeem fuelperks!® discounts worth 50 cents per gallon or more. In particular, in the fuelperks!® program, customers need to spend $250 in order to earn a 50 cents per gallon fuelperks!® discount. The data that Giant Eagle has gathered shows that there are significantly more transactions where customers redeem 50 cents per gallon or more in fuelperks!® discounts as compared to the number of transactions where customers purchase non-fuel products totaling $250 or more. This shows that many customers are not redeeming fuelperks!® discounts immediately after they are earned (e.g., at the next fuel purchase transaction), and instead prefer to accumulate their fuelperks!® discounts to significantly reduce the price per gallon of fuel. Specifically, from September 1, 2008 to August 31, 2009, there were 1,909,931 non-fuel purchase transactions (at Giant Eagle supermarket and convenience store retail locations) totaling $250 or more. In comparison, during the same period, there were 10,083,941 fuel transactions where a customer redeemed 50 cents per gallon or more in fuelperks!® discounts.

17.   We have also found that, on average, customers fill their vehicles with more fuel (a greater number of gallons) during transactions in which they are redeeming earned fuelperks!® discounts as compared to transactions in which they purchase fuel without actually redeeming earned fuelperks!® discounts. For example, from January 2009 to March 2009, the average number of gallons pumped in transactions where fuelperks!® discounts were redeemed was 15.97 gallons, and the average number of gallons pumped in transactions where fuelperks!® discounts were not redeemed was 10.08 gallons. The feature of the fuelperks!® program that gives customers the ability to elect at the pump whether or not to redeem fuelperks!® discounts after being advised of the current available discount level gives our customers the flexibility to choose when to use their earned fuelperks!® discounts based on how much fuel they currently need. More specifically, if a small amount of fuel is needed, they may elect not to use their fuelperks!® discounts, preferring to save them for a situation where they need more fuel (e.g., a full tank). Also, we have found that some customers who own more than one

vehicle prefer to save their fuelperks!® discounts until the vehicle with the larger fuel tank is nearly empty to maximize the amount of fuel they can purchase at a discount (the fuelperks!® program currently puts a 30 gallon limit on the total amount of fuel that can be purchased using a discount during a single transaction). This flexibility provided by the at pump election feature of the fuelperks!® program is thus an important feature for our customers and is another factor that has lead to the tremendous success of the fuelperks!® program. This flexibility would not be provided if discounts were automatically applied as soon as the customer scanned their Giant Eagle Advantage Card® at the pump.

18. The importance of the at pump election feature of the fuelperks!® program has increased even more recently with the recent launch (November 2008 in Columbus and April 2009 in Pittsburgh) of another program at Giant Eagle known as foodperks!®. In the foodperks!® program, customers are able to earn discounts toward the purchase of non-fuel products at Giant Eagle supermarket and convenience store retail locations based on the purchase of fuel at Giant Eagle's GetGo® fuel and convenience store locations. Currently, customers earn a 1% discount on the purchase of non-fuel products for every ten gallons of fuel that are pumped. To earn foodperks!® discounts when pumping fuel, customers must scan their Giant Eagle Advantage Card® at the pump when initiating the pumping of fuel so that their customer identification number can be obtained and earned discounts can be credited and stored appropriately. Thus, Giant Eagle customers that in the past (prior to the foodperks!® program) may have pumped fuel without scanning their Giant Eagle Advantage Card® when they did not want to redeem fuelperks!® discounts now have an incentive (i.e., the earning of foodperks!® discounts) to scan their Giant Eagle Advantage Card® during every fueling transaction, even if they intend not to redeem fuelperks!® discounts. Proof of the effect of this incentive may be found in the fact that: (i) following the launch of the foodperks!® program in the Columbus, Ohio area in November of 2008, the rate at which customers purchasing fuel at GetGo® fuel and convenience store locations in the Columbus, Ohio area scanned Giant Eagle Advantage Cards® increased by 10% (from approximately 75% of transactions to approximately 85% of transactions), and (ii) following the launch of the foodperks!® program in the Pittsburgh area in April of 2009,

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the rate at which customers purchasing fuel at GetGo® fuel and convenience store locations in the Pittsburgh area scanned Giant Eagle Advantage Cards® increased by 15% (from approximately 65% of transactions to approximately 80% of transactions). Without the at pump election feature of the fuelperks!® program, customers would essentially be forced to make an undesirable choice, namely redeem fuelperks!® discounts when they did not want to in order to earn foodperks!® discounts, or lose out on earning foodperks!® discounts so that fuelperks!® discounts will not be redeemed when not desired. Therefore, without the at pump election feature of the fuelperks!® program, we firmly believe that the fuelperks!® program would be less popular with customers and therefore less successful for Giant Eagle.

19. In summary, Giant Eagle's fuelperks!® program has been and continues to be a tremendous success for Giant Eagle. It has lead to increased customer traffic and visits to Giant Eagle supermarket and convenience store retail locations and increased sales which we estimate at 5-6%. Also, a large degree of customer satisfaction with the program can be tied directly to the at pump election feature of the fuelperks!® program which gives the customers the ability during a particular fuel purchasing transaction to choose to either use (redeem) their accumulated fuelperks!® discount or instead not redeem and continue to save their accumulated fuelperks!® discount so that additional discount amounts can be earned (possibly toward a free tank of gas).

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK]

7

Further Affiant sayeth not.

All statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

_____
John Lucot
Executive Vice President &
Chief Operating Officer
Giant Eagle, Inc.

Date: 10/7/09

Commonwealth of Pennsylvania   :
                                  : SS:
County of Allegheny   :

Before me, a Notary Public in and for the said County and State, personally appeared JOHN LUCOT, who acknowledged that he is the person who executed the foregoing affidavit and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this 7th day of October, 2009.

_____
Notary Public

(Notarial Seal)

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Leyha M. Crawford, Notary Public
O'Hara Twp., Allegheny County
My Commission Expires March 26, 2011
Member, Pennsylvania Association of Notaries

[SIGNATURE PAGE TO JOHN LUCOT AFFIDAVIT]

EXHIBIT A
GIANT EAGLE CUSTOMER TESTIMONIALS

Columbus Market

"I like having the choice to use my discounts right away or save them once I have a larger discount." – *Jeffrey Reese*

"We have filled our car up for free on several occasions with the fuelperks! program. Probably as many as 10 times!" – *Victoria Smith*

"We have saved over $1 in fuelperks! Last summer, we used our fuelperks! discount when we filled our camper before we went on a trip and it was a huge savings!" – *Arlette Coleman*

"I haven't paid for a tank of gas in over a year!" – *Cheryl Keller*

"I like that you can accumulate your fuelperks! and decide to redeem right away or wait until you have a bigger discount." – *Charlene Lindsay*

Toledo Market

"The fuelperks! program is great because you can accumulate your discounts to get a free tank of gas!" – *Rodney Wright*

"I like to accumulate my fuelperks! until I have a free tank. That's usually a savings of at least $70, which is pretty significant!" – *Carl Deliberto*

"I like that you can continue to build up your fuelperks! to accumulate a larger discount." – *Rita Aller*

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"I like the fact that you can accrue your fuelperks! over a period of three months before they expire." – *Kathleen Riley*

"I like that you can accumulate your fuelperks! up to the purchase price of gas. Other programs you are limited in how much you can earn." – *Michelle Leasor*

Maryland Market

"It's fun to let the points accumulate and get a larger discount." – *Kate Bufter*

"We've gotten a free tank of gas at least three times with fuelperks!" – *Linda Lebo*

"We have had quite a few free tanks of gas because of gift cards, pharmacy and groceries." – *Kathleen Golub*

"I like to accumulate my fuelperks! until I have a free tank of gas." – *Lois Strickland*

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: :   Entitled:

Russell G. Ross et al.   :   System and Method of Providing Discounts
                                              On the Purchase of Gasoline
Serial No. 10/975,277   :

Filed October 28, 2004   :

Art Unit 3622   :   Confirmation No. 6022

Examiner Jean D. Janvier   :   Attorney Docket No. 076021-00604

<u>SECOND AFFIDAVIT OF JOHN LUCOT</u>

I, John Lucot, state as follows:

1.   This Second Affidavit of John Lucot supplements and incorporates by reference Paragraphs 1 through 19 of my Affidavit dated October 7, 2009 ("First Affidavit").

2.   Consumers in the markets in which Giant Eagle serves (western Pennsylvania, Ohio, north central West Virginia, and Maryland) have several choices as to where to do their supermarket shopping. Giant Eagle's direct competitors in the retail supermarket business in its markets include at least the following:

- Acme – Akron and Canton markets
- Aldi – all markets
- Buehler's – Ohio markets
- Costco – all markets
- Foodland – Pittsburgh markets
- Kroger – Columbus, Toledo, and West Virginia markets
- Marc's – Ohio markets
- Martin's – Altoona markets
- Meijer – Columbus markets
- Shop 'n Save – Pittsburgh and West Virginia markets

-1-

- Trader Joes – all markets
- Walmart – all markets
- Whole Foods – all markets

3.   Of the above direct competitors, the following offer fuel discount programs, wherein discounts are earned based on grocery and other sales in the supermarket:

- Acme – Fuel Rewards (program commenced March 2009)
- Foodland – FuelLinks (program commenced April 2006)
- Kroger – Fuel Saver Rewards
- Martin's – Gas Extra Rewards
- Shop 'n Save – Pump Perks (program commenced May/June 2005)

4.   As stated in Paragraph 10 of the First Affidavit, our internal analysis has determined that the fuelperks!® program has lead directly to an overall 5% to 6% increase in gross sales for Giant Eagle supermarket retail locations (based on sales figures from various retail locations before and after rollout of the program).

5.   Based on data compiled by The Nielsen Company, we have been able to determine that Giant Eagle's market share in the retail supermarket business in its markets has grown steadily since 2005. In particular, based on the Nielsen data, Giant Eagle's market share growth in the retail supermarket business in its markets since 2005 is as follows:

Year	Market Share
52 weeks ending 12/26/09	16.2
52 weeks ending 12/27/08	14.5
52 weeks ending 12/29/07	14.1
52 weeks ending 12/30/06	13.0

-2.-

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52 weeks ending 12/31/05	11.7

6.   As also set forth extensively in the First Affidavit, the popularity of the fuelperks!® program is tied to consumers' ability to elect or not elect to use their fuel discount when initiating a fuel purchase.

7.   The fuelperks!® program has been recognized by the industry as an innovative program. Specifically, Giant Eagle was named the Retailer of the Year in 2007 by *Grocery Headquarters Magazine*. In an article announcing the award, *Grocery Headquarters Magazine* stated the following about Giant Eagle's Advantage Card® loyalty program (see paragraph 6 of the First Affidavit regarding the program): "With 3.5 million cardholders, the program can certainly be called a success. But what has taken it to a higher level is adding a gasoline marketing component called Giant Eagle fuelperks! that debuted about four years ago.". In addition, based on the fuelperks!® program, Giant Eagle received the IBM Retail Leader Award for Excellence in Loyalty Marketing at the LEAD Marketing Conference in October of 2009.

8.   Further Affiant sayeth not.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

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All statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

John Lucot
Executive Vice President &
Chief Operating Officer
Giant Eagle, Inc.

Date: 8/23/10

Commonwealth of Pennsylvania   :
                                 : SS:
County of Allegheny   :

Before me, a Notary Public in and for the said County and State, personally appeared JOHN LUCOT, who acknowledged that he is the person who executed the foregoing affidavit and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this 23rd day of August, 2010.

Notary Public

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Leyha M. Crawford, Notary Public
O'Hara Twp., Allegheny County
My Commission Expires March 28, 2011
Member, Pennsylvania Association of Notaries

(Notarial Seal)

[SIGNATURE PAGE TO SECOND AFFIDAVIT OF JOHN LUCOT]

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A0650

APPENDIX 3 (Related Proceedings Appendix)

Decision on Appeal in Appeal No. 2009-003447

1   UNITED STATES PATENT AND TRADEMARK OFFICE
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3
4   BEFORE THE BOARD OF PATENT APPEALS
5   AND INTERFERENCES
6
7
8   *Ex parte* RUSSELL G. ROSS and REBECCA B. KANE
9
10
11   Appeal 2009-003447
12   Application 10/975,277
13   Technology Center 3600
14
15
16   Decided: August 11, 2009
17
18
19   Before HUBERT C. LORIN, ANTON W. FETTING, and
20   JOSEPH A. FISCHETTI, *Administrative Patent Judges.*
21
22   FETTING, *Administrative Patent Judge.*
23
24   DECISION ON APPEAL
25

Appeal 2009-003497
Application 10/975,277

STATEMENT OF THE CASE

Russell G. Ross and Rebecca B. Kane (Appellants) seek review under
35 U.S.C. § 134 (2002) of a final rejection of claims 1-4, 7-12, 14-16, 20-25,
29-32, and 34-36, the only claims pending in the application on appeal.

We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b)
(2002).

SUMMARY OF DECISION

We AFFIRM.

THE INVENTION

The Appellants invented a system and method for providing discounts
to customers who perform certain actions, such as purchasing gasoline using
a customer identification number (Specification 1:7-12).

An understanding of the invention can be derived from a reading of
exemplary claim 1, which is reproduced below [bracketed matter and some
paragraphing added].

1. A method of providing a customer with an ability to purchase
gasoline at a discount, said customer having customer identification
information, the method comprising:

[1] determining accumulated discount information each time:

(i) said customer performs at least one of one or more predefined
actions,

(ii) said customer identification information is received in association
with said at least one of one or more predefined actions, and

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Appeal 2009-003497
Application 10/975,277

(iii) first information relating to said at least one of one or more predefined actions is received, said accumulated discount information being based on said first information;

[2] storing in a database said accumulated discount information in association with said customer identification information;

[3] obtaining said customer identification information when said customer initiates the purchase of gasoline;

[4] accessing said stored accumulated discount information from said database using said customer identification information;

[5] determining an available discount level based on said accumulated discount information that is accessed;

[6] presenting said available discount level to said customer;

[7] receiving from said customer in response to said presenting step either an election not to take a discount or an election to take a discount equal to an elected discount level;

[8] providing no discount to said customer on said purchase of gasoline if said election not to take a discount is received; and

[9] providing said customer with a discount equal to said elected discount level on said purchase of gasoline if said election to take a discount equal to said elected discount level is received.

THE REJECTIONS

The Examiner relies upon the following prior art:

Ikeda et al.	US 5,937,391	Aug. 10, 1999
McCall et al.	US 6,321,984 B1	Nov. 27, 2001
Nicholson	US 6,332,128 B1	Dec. 18, 2001

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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/975,277	10/28/2004	Russell G. Ross	076021-00604	6022

3705 7590 05/09/2012	EXAMINER
ECKERT SEAMANS CHERIN & MELLOTT	SIGMOND, BENNETT M
600 GRANT STREET	
44TH FLOOR	
PITTSBURGH, PA 15219	

ART UNIT	PAPER NUMBER
3688	

MAIL DATE	DELIVERY MODE
05/09/2012	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

A0664

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/975,277
Filing Date: October 28, 2004
Appellant(s): Ross, et al.

Philip E. Levy
Reg. No. 40,700
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 17, 2012.

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Art Unit: 3688

(1) Grounds of Rejection to be Reviewed on Appeal

Every ground of rejection set forth in the Office action dated October 18, 2011
from which the appeal is taken is being maintained by the examiner.

The following grounds of rejection are applicable to the appealed claims.

Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 are rejected under 35 U.S.C.
§103(a) as being unpatentable over U.S. Pat. No. 6,321,984 B1 dated November 27,
2001 to McCall, et al. (hereinafter, "McCall").

Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 are rejected under 35 U.S.C.
§103(a) as being unpatentable over U.S. Pat. No. 6,332,128 B1 dated December 18,
2001 to Nicholson (hereinafter, "Nicholson").

(2) Response to Argument

ISSUE ON APPEAL

**The sole issue presented by this appeal is whether evidence of commercial
success offered by appellant is sufficient to overcome the foregoing obviousness
rejections, which were previously sustained by this Board.**

The rejections in issue were previously set forth in a final office action dated June
18, 2007. Applicant appealed the June 18, 2007 final action. The Board sustained the
rejections, specifically sustaining the finding of obviousness as both appropriate and
warranted by the evidence (see Decision on Appeal dated August 11, 2009 in Appeal
No. 2009-003447 in the present application (No. 10/975,277) (the "Prior Decision") at

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p.11, a copy of which is attached as Appendix 3 (Related Proceedings Appendix) to

Appellant's Brief on Appeal).

Following the Prior Decision, applicant filed a request for continued examination.

In support of the request, applicant offered the first and second affidavits of John Lucot,

copies of which are provided in Appendix 2 to applicant's brief. By final office action

dated October 18, 2011, examiner repeated the previously sustained rejections under

35 U.S.C. §103(a). In so doing, examiner found that the proffered evidence of

commercial success was insufficient to overcome the previously cited evidence of

obviousness. The issue on appeal is whether the Lucot affidavits overcome the

previously sustained rejections on the grounds of obviousness.

ARGUMENT

The Evidence of Obviousness is Strong

As discussed in the Prior Decision, for purposes of the present appeal, the

essence of the invention can be understood from an examination of claim 1 (Prior

Decision at p. 2). Claim 1 recites "[a] method of providing a customer with an ability to

purchase gasoline at a discount, said customer having customer identification

information", the method comprising the steps recited below. Step numbers have been

inserted herein for convenience of reference. The disclosed steps are:

(1) determining accumulated discount information each time: (i) said customer

performs at least one of one or more predefined actions, (ii) said customer identification

information is received in association with said at least one of one or more predefined

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Art Unit: 3688

actions, and (iii) first information relating to said at least one of one or more predefined

actions is received, said accumulated discount information being based on said first

information;

    (2) storing in a database said accumulated discount information in association

with said customer identification information;

    (3) obtaining said customer identification information when said customer initiates

the purchase of gasoline;

    (4) accessing said stored accumulated discount information from said database

using said customer identification information;

    (5) determining an available discount level based on said accumulated discount

information that is accessed;

    (6) presenting said available discount level to said customer;

    (7) receiving from said customer in response to said presenting step either

an election not to take a discount or an election to take a discount equal to an

elected discount level;

    (8) providing no discount to said customer on said purchase of gasoline if

said election not to take a discount is received; and providing said customer with

a discount equal to said elected discount level on said purchase of gasoline if

said election to-take a discount equal to said elected discount level is received.

    The last two steps, (7) and (8), referred to herein as the "Discount Election" are

the subject of the finding of obviousness at issue in the present appeal.

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Both McCall and Nicholson anticipate steps (1) through (6) of claim 1. In a nutshell (and borrowing from the findings in the Prior Decision) McCall discloses a fuel dispenser with a promotional system that provides promotional discounts to a customer based on the customer's purchasing habits. McCall teaches that in connection with a purchase of gasoline, a retail customer provides identifying data such as a receipt having a bar code, entry of a code on a keypad, a magnetic card or the like. The data is communicated to a server, which in communication with a database, determines whether the current purchases will merit a fuel discount. The determination can be based on whether the customer's purchase value or quantity exceeds a predefined threshold. If the determination is that a discount will be offered, the server authorizes the discount, sends a signal to a POS, and the POS presents a coupon, authorization code or other communication of the discount to the customer.

Similarly, Nicholson is directed to a system and method for controlling the generation, distribution and redemption of coupons and the allocation of discounts to multiple vendors in cross-marketing ventures. The discounts include discounts on the purchase of gasoline in exchange for purchases at a grocery store. Nicholson discloses that when a customer purchases items from a merchant, a POS device determines which purchases qualify for a discount on gasoline, sums the discounts and determines a total discount the customer is entitled to receive. When a customer desires to redeem the discount, the customer presents a printed receipt which is scanned at the gas pump dispenser. A controller in communication with the retailer's system (including various databases in the retailer's system) verifies the discount, presents the discount or the

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discounted gasoline price to the customer, and applies the discount to the fuel purchase.

Neither McCall nor Nicholson expressly discloses steps (7) and (8), the Discount Election. In essence, those steps disclose (1) receiving from the customer either (i) an election not to take a discount at all or (ii) an election to take a discount at a given level, and then (2) honoring the customer's election in calculating the price applicable to the customer's fuel purchase.

In the final office action of June 18, 2007, examiner took Official Notice that at the time of the invention, it was common practice to allow a customer to view accumulated points and to enable the customer to redeem all or a portion of the accumulated points in connection with a retail purchase (see June 18, 2007 Office Action at pp. 21-22). In support of Official Notice, examiner cited U.S. Pat. No. 5,937,391 dated August 10, 1999 to Ikeda, et al. (hereinafter, "Ikeda"). Ikeda teaches systems and methods for the issuance and redemption of points in connection with retail purchases (see Ikeda, col. 2:10-65). In connection with a pending purchase, a customer is shown the number of points accumulated and is offered a choice of using none of the available points or a specified number of the available points in connection with the pending purchase (see Ikeda, col 9:55 - 10:60, Fig. 13). Then the customer's choice is honored (see Ikeda, col. 10:55 - 11:62, Fig. 15) (see also, Prior Decision, Findings, 08-10, p.7). In the June 18, 2007 office action, examiner found that it would have been obvious to one having ordinary skill in the art at the time of the invention to modify McCall and Nicholson to

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include the Discount Election, based on Official Notice. Applicant challenged this finding

in the previous related appeal reference above.

In the Prior Decision, the Board sustained examiner's rejection. In so doing, the

Board found that examiner's taking of Official Notice was proper (Prior Decision at p.9)

and properly supported by Ikeda (Prior Decision at p.10). The Board specifically found:

> "A person with ordinary skill in the art would have recognized the
> benefit of presenting a user with options and thereby increasing customer
> satisfaction by providing the features of presenting information to the user
> and receiving an election from the user that can be for a fraction of the
> available discount. As such, a person with ordinary skill in the art would
> have found it obvious to modify McCall or Nicholson with the Official
> Notice. Since the facts taken under Official Notice were notoriously old
> and well-known and McCall and Nicholson are concerned with the same
> problems, a person of ordinary skill in the art would have been lead to
> combine their teachings at the time of the claimed invention." (Prior
> Decision at p. 11).

Following the Prior Decision, applicant requested continued examination,

presenting the same claims as before, with minor amendments that are not in issue in

this appeal. Applicant also presented the Lucot Affidavits as evidence of the commercial

success of the claimed invention. In a final rejection from which appeal is now taken,

examiner repeated the previously sustained rejections, finding that the evidence of

commercial success was insufficient to overcome the evidence of obviousness. Given

the Board's previous findings about the evidence of obviousness, examiner submits that

the evidence is quite strong.

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The Evidence of Commercial Success is Insufficient to Overcome the Evidence of Obviousness

In order to be overcome a finding of obviousness, evidence of commercial success must show that the commercial success is due to the *claimed and novel features of the invention* (see Donald S. Chisum, Chisum On Patents (hereinafter, "Chisum"), §5,05, n.44 citing *Ormco Corp. v. Align Technology, Inc.*, 463 F.3d 1299 , 1313 (Fed. Cir. 2006)) and not the result of heavy promotion or advertising, shifts in advertising or other business events extraneous to the claimed invention (see MPEP §716.03(B)(I) citing *In re Mageli*, 470 F.2d 1380, 176 USPQ 305 (CCPA 1973)). Conclusory statements or opinions that increased sales were due to the merits of the invention are entitled to little weight (see MPEP §716.03(B)(I) citing *In re Noznick*, 478 F.2d 1260, 178 USPQ 43 (CCPA 1973)). A showing of some degree of commercial success may be insufficient to overcome strong evidence of obviousness (see Chisum, §5,05, n.44 citing *Sandt Technology, Ltd. v. Resco Metal and Plastics Corp.*, 264 F.3d 1344 , 1355 (Fed. Cir. 2001)).

The Lucot affidavits demonstrate that people will accept a price cut on an expensive and needed commodity like gasoline. The affidavits also demonstrate that some six years after introduction of the Giant Eagle's fuelperks!® program, the Discount election is being used. Conspicuously absent, however, is any competent evidence that the Discount Election has resulted in anything that can genuinely be characterized as "commercial success".

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The first Lucot Affidavit indicates that Giant Eagle has over $8 billion in annual sales (¶2). Lucot further testifies that between June 29, 2008 and June 27, 2009, pursuant to its fuelperks!® program, Giant Eagle gave away some $282,000,000 in free gas to some 2,576,123 unique households (¶11). Thus, Giant Eagle gave away approximately 3.5% of its annual sales. These statistics do not reflect use of the Discount Election, but rather, use of the fuelperks!® program as a whole, including those aspects of the program anticipated by McCall and Nicholson. Further, these statistics do not show that Giant Eagle *gained* anything. Rather, they show that Giant Eagle gave something away, en masse.

Applicant also presents evidence that the Discount Election is in fact being used by customers. At ¶12, the first Lucot Affidavit offers that between September 1, 2008 and August 31, 2009, some 25% of fuel transactions where a customer scanned their Giant Eagle Advantage Card® at the pump ultimately resulted in the customer deciding not to redeem their available discount. Lucot further states that during the same period, 709,869 customers "earned" 2,049,814 free tanks of gas (first Lucot Affidavit ¶14) and there were "10,083,941 fuel transactions where a customer redeemed 50 cents per gallon or more in fuelperks!® discounts" (first Lucot Affidavit ¶14). The problem is, these statistics reflect use of the Discount Election some 5-6 years after the fuelperks!® program was first introduced in late 2003 (first Lucot Affidavit ¶7). This huge gap in time between the introduction of the fuelperks!® program and the statistics concerning the popularity of the Discount Election suggest that something other than the features of the Discount Election, such as advertising, promotion, increases in gas prices and other

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factors are responsible for the current statistics. Indeed, Lucot tacitly admits as much

when he describes the launch of the foodperks!® program in November of 2008 and

April of 2009 (first Lucot Affidavit ¶18), which is the only period of time for which

appellant presents statistics as to the popularity of the Discount Election. The

foodperks!® program, which was launched after the June 18, 2007 office action,

encourages use of the Discount Election. Conspicuously absent is any evidence that

prior to the fiscal year in which the foodperks!® program was launched, the Discount

Election had any popularity at all.

Applicant also presents customer testimonials praising the fuelperks!® program

and the Discount Election (first Lucot Affidavit ¶13). However, with a customer base

exceeding 2,500,000 unique households (first Lucot Affidavit ¶11) that purchase $8

billion worth of products per year, a few testimonials hardly constitute proof of

"commercial success".

Equally missing is any competent evidence that the Discount Choice has

conferred upon Giant Eagle, any benefit commensurate with the enormous expense of

giving away millions of dollars in free gas. At ¶10, the First Lucot Affidavit states "our

internal analysis has determined that the fuelperks!® program has lead (sic) directly to

an overall 5-6% increase in gross sales for Giant Eagle supermarket retail locations

(based on sales figures from various retail locations before and after rollout of the

program)." However, this is precisely the sort of unsupported and self-serving

conclusion that is entitled to little if any weight as a matter of law (see *In re Noznick,*

cited above). Further, Lucot does not indicate whether this 5-6% increase in sales is

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over the entire six (6) year period between rollout of the program in late 2003 (First

Lucot Affidavit at ¶7) and the date of the declaration (10/07/2009) or some shorter

period of time. If the former is true (5-6% increase over 6 years), then according to

Lucot, the fuelperks!® program gives away free product worth 3.5% of Giant Eagle's

annual sales, but has returned an average of less than 1% of annual sales since

inception. Further, even Lucot attributes the increase in sales to the *entire fuelperks!®*

program including those aspects of the program that are not novel. No evidence has

been offered correlating the *Discount Election* with any meaningful increase in sales,

margins, profits, market share or any other measure of commercial success.

The second Lucot Affidavit indicates that between 2005 and 2009, Giant Eagle's

Market Share in the markets where it operates grew from 11.7% at year-end 2005 to

16.2% at year-end 2009. Again, however, there is no evidence that this growth in

Market Share is attributable to the Discount Election as opposed to advertising,

increases in the number or size of Giant Eagle stores, corporate acquisitions by Giant

Eagle, weakness on the part of Giant Eagle's principal competitors, or even the non-

novel aspects of the fuelperks!® program.

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In short, applicant's evidence of commercial success falls far short of overcoming

the strong evidence of obviousness previously affirmed by the Board.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/BENNETT SIGMOND/

Examiner, Art Unit 3688

Conferees:

John Weiss, SPE, Art Unit 3688

/JOHN G. WEISS/

Supervisory Patent Examiner, Art Unit 3688

Saba Dagnew, Primary Examiner, Art Unit 3688

/SABA DAGNEW/

Primary Examiner, Art Unit 3688

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re PATENT APPLICATION of

Appeal No.	:	(not yet assigned)
Inventor	:	Russell G. Ross et al.
Appln. No.	:	10/975,277
Conf. No.:	:	6022
Filed:	:	October 28, 2004
Title:	:	SYSTEM AND METHOD OF PROVIDING DISCOUNTS ON THE PURCHASE OF GASOLINE
Group Art Unit	:	3688
Examiner	:	Sigmond, B. M.
Docket No.	:	076021-00604

*   *   *   *   *

July 6, 2012

APPELLANTS' REPLY BRIEF

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Appellants' Reply Brief under 37 CFR § 41.41 is in reply to the Examiner's Answer, mailed on May 9, 2012, for the above-captioned application.

The following remarks are substantially directed to the Response to Argument section of the Examiner's Answer (pages 2-12).

Appellants' have demonstrated that Giant Eagle, Inc., the parent and exclusive licensee of the assignee of the present invention, provides a fuel discount program known as fuelperks!® which meets the limitations of claims 1 and 22 of the present application. First Lucot Affidavit, ¶¶7-9 (attached to Appellants' Appeal Brief at Appendix 2). In addition, the fuelperks!® program has proven to be extremely valuable to Giant Eagle, as it has been

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tremendously successful in driving traffic to their stores. In fact, Giant Eagle's own internal analysis has concluded that they have seen an overall increase in gross sales of 5-6% that can be attributed directly to the fuelperks!® program. First Lucot Affidavit, ¶10. In the Examiner's Answer, the Examiner questions whether this can really be considered to be a success since, in at least one period (fiscal year 2009), $282,000,000 worth of free fuel (about 3.5% of annual sales) was awarded, and it was unclear whether the 5-6% that can be attributed directly to the fuelperks!® program is an annualized number.

Giant Eagle determined that it has experienced an overall increase in gross sales of 5-6% by comparing sales in a period just before the rollout of the fuelperks!® program to a similar period just after the rollout of the fuelperks!® program. First Lucot Affidavit, ¶10. This can largely be attributed to the fact that, because people want to earn fuelperks!® discounts, they are purchasing more products at Giant Eagle's stores (by making more visits and/or purchasing more products in each visit; customers, that otherwise may have purchased products from competitors for various reasons, such as convenience (e.g., store located closer to them), now have a great incentive to purchase those products at a Giant Eagle store). Giant Eagle believes that the increased sales level has been sustained during the life of the fuelperks!® program, and further believes that it would experience a similar drop if the fuelperks!® program were to be discontinued. Giant Eagle thus views the fuelperks!® program as a marketing expense, and has made a conscious business decision that that expense, in the form of awards of free fuel, provides a net increase in value to the company (it should be noted that that conscious business decision has been made by savvy marketing professionals with a significant experience in the supermarket retail business).

In addition, Appellants' have demonstrated that the discount election option of the fuelperks!® program is very popular with and important to Giant Eagle's customers, and has been a key factor in making the fuelperks!® program a success. In particular, the goal of many customers is to earn enough of a total price per gallon discount to be able to get a free tank of gas, and therefore many customers will accumulate their earned discounts over time (i.e., not use them at each fuel purchasing transaction) in order to save for the free tank. To do so, customers must use the discount election option. First Lucot Affidavit, ¶¶12-19. The evidence presented by Appellants, based on the particular habits of its customers, shows that large numbers of customers prefer to and are in fact choosing to save their fuelperks!® discounts by using the

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discount election option of the fuelperks!® program. First Lucot Affidavit, ¶16. The discount election feature of the fuelperks!® program also gives Giant Eagle's customers the flexibility to choose when to use their earned fuelperks!® discounts based on considerations such as how much fuel they may currently need at a fueling transaction (if a small amount of fuel is needed, the customer may elect not to use their fuelperks!® discounts, preferring to save them for a situation where they need more fuel (e.g., a full tank)) or which vehicle they are driving at a fueling transaction (customers that own more than one vehicle have the flexibility to save their fuelperks!® discounts until the vehicle with the larger fuel tank is nearly empty to maximize the amount of fuel they can purchase at a discount). This all provides Giant Eagle with a tremendous comparative/competitive advantage over other fuel reward programs that do not offer such a feature. See *Winner International Royalty Corp. v. Wang*, 202 F. 3d 1340, 1350-51 (patented improvement over the existing "Club" device was a self locking ratcheting mechanism that replaced a key lock, and a survey established that customers viewed the self locking feature as being of value to them and was the reason they purchased the self locking version over the version requiring key locking, even at a higher price); DONALD S. CHISUM, CHISUM ON PATENTS, §5.05[2][f][ii], pp. 5-680 (legally sufficient nexus between commercial success and merits of patented invention may be shown by "evidence that the patented feature yields comparative advantages.").

In the Examiner's Answer, the Examiner takes the position that the evidence presented by Applicants relating to the foodperks!® program (wherein customers are able to earn discounts toward the purchase of non-fuel products at Giant Eagle supermarket and convenience store retail locations based on the purchase of fuel at Giant Eagle's GetGo® fuel and convenience store locations, and thus really need the ability to elect whether to redeem discounts at the time of fueling so that they can, without worry, scan their Giant Eagle Advantage Card® at the pump very time) demonstrates that something other than the features of the discount election option has lead to the success of the fuelperks!® program. To the contrary, that evidence demonstrates how important the discount election option is and how much of a comparative/competitive advantage over other fuel reward programs it provides. Id.

Thus, Applicants have clearly shown the required nexus between the commercial success of the fuelperks!® program and the invention since it has been demonstrated

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that the fuelperks!® program both implements the invention as recited in claims 1 and 22 and has been objectively successful. It has also been shown that the at pump discount election feature of the fuelperks!® program, recited in claims 1 and 22, has been one of the major contributors to the tremendous commercial success of the fuelperks!® program and therefore the invention. See *Demaco*, 851 F.2d at 1392 (a patentee meets the burden of establishing a *prima facie* case of nexus between commercial success and the merits of the invention by showing that a product or process is commercially successful and is the invention disclosed and claimed; *the burden then shifts to the validity challenger to show that the success is due to other factors, such as advertising)*; *Joy Technologies Inc. v. Quigg*, 732 F. Supp. 227, 237 (D. D.C. 1990) ("a prima facie case of nexus is made out when the patentee shows both that there is commercial success and that the thing that is commercially successful is the invention disclosed and claimed in the patent."). These factors strongly indicate that, contrary to the Examiner's assertions, claims 1 and 22 of the present application would not have been obvious in light of the McCall and Nicholson patents.

Summary and Conclusion

Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 are patentable over the cited references.

Therefore, it is requested that the Board reverse the Examiner's rejections of Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36 and remand the application to the Examiner for the issuance of a Notice of Allowance for Claims 1-4, 7-12, 14-16, 20-25, 29-32 and 34-36.

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of
RUSSELL G. ROSS and
REBECCA B. KANE,

Attn: Director, USPTO
         Mail Stop 8

Application 10/975,277
Filed October 28, 2004
For: System and Method of Providing
        Discounts on the Purchase of Gasoline

Appeal No. 2012-010402
Attorney Docket No. 076021-00604
Express Mail No. EM-015524874

NOTICE OF APPEAL TO THE UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

Applicants Russell G. Ross and Rebecca B. Kane hereby serve notice of their

petition/appeal to the United States Court of Appeals for the Federal Circuit from the decision of

the Board of Patent Appeals and Interferences dated June 5, 2013. A copy of the decision under

review is attached.

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August 5, 2013

A0688

US006321984B1

(12) **United States Patent**   (10) Patent No.:   **US 6,321,984 B1**

McCall et al.   (45) Date of Patent: *Nov. 27, 2001

(54) **ADJUSTABLE PRICE FUEL DISPENSING SYSTEM**

(75) Inventors: **Don C. McCall**, Cedar Park; **Dave Embertson**; **Mike Zahajko**, both of Austin, all of TX (US)

(73) Assignee: **Dresser Equipment Group, Inc.**, Carrollton, TX (US)

(*) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/255,472**

(22) Filed: **Feb. 23, 1999**

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/026,634, filed on Feb. 20, 1998, now Pat. No. 6,112,981.
(60) Provisional application No. 60/039,007, filed on Feb. 25, 1997.

(51) **Int. Cl.**^{7} **G06K 5/00**
(52) **U.S. Cl.** **235/381**; 235/380
(58) **Field of Search** 235/381, 375, 235/470, 493, 383, 382, 382.05, 380

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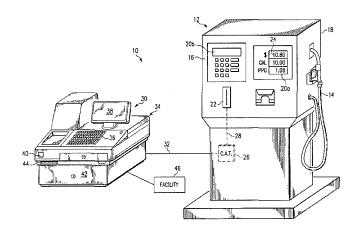
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(74) *Attorney, Agent, or Firm*—Haynes & Boone, L.L.P.

(57) **ABSTRACT**

An integrated customer reward processing system and fuel dispensing apparatus to allow a retailer to authorize fuel to be dispensed at a discounted unit price in accordance with a customer's achievement of predefined purchasing criteria. More particularly, a data processing system is provided that implements customer rewards and includes a database that creates and maintains records associated with customers that make purchases at an associated store. The reward system will track the customer purchases and compare them with a predefined criteria to determine when a fuel discount is to be provided. When a customer meets one of the predefined criteria, the reward system will authorize a fuel discount and provide the customer with a mechanism to obtain the fuel at a discounted unit price.
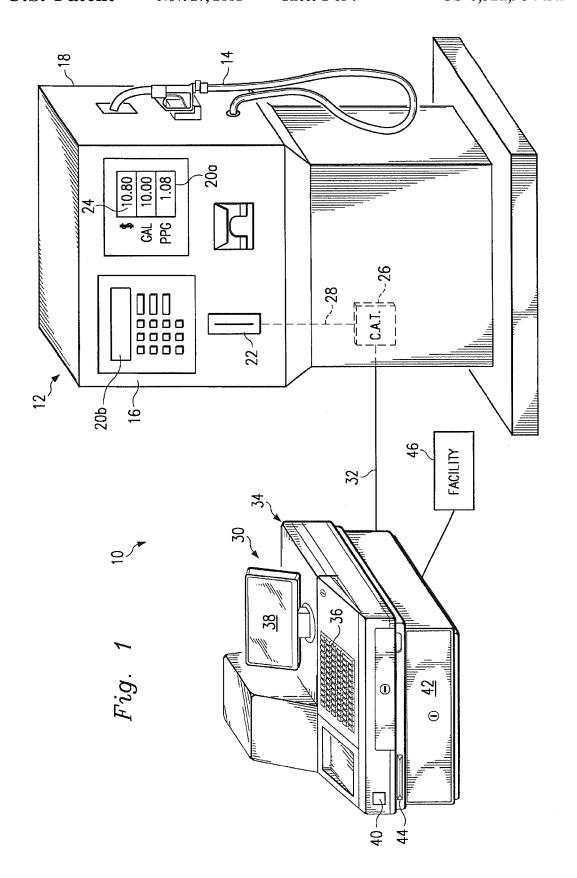
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Fig. 1

Fig. 2

Fig. 3

Fig. 4b

Fig. 4a

A0707

Fig. 5

Fig. 6

Fig. 7

142

$	10.80
GAL	10.00
PPG	1.08

C.A.T. 26

32

30

COMPUTING CENTER

KIOSK

146

144

148

1 2 3

140

150

Fig. 8

Fig. 9

SMITH, A	ID NO.	1234ABC					
DATE 302	PURCHASES 304	QUANTITY OF DESIGNATED ITEMS (PROMO) 306	TOTAL QUANTITY (LOYALTY) 308	DISCOUNT 310	DISCOUNT USED 312	DISCOUNT AMOUNT 314	
1/5/99	$20	3	5	N			
1/17/99	$15	5	10	Y (≥5 PROMO)	1/20/99	10¢/GAL	
1/28/99	$45	2	4	N			
2/4/99	$25	1	3	Y (>20 LOY) Y (>100$)		10¢/GAL 15¢/GAL } 25¢/GAL	
TOTAL	$105	11	22				
	316	318	320				

300

208

400 — START

401 — CUSTOMER PURCHASES ITEMS ENTERED (SCANNED, KEYED) AT POS SYSTEM

402 — DATA PROVIDED TO SERVER. UPDATE DATABASE

403 — SERVER ANALYZES CUSTOMER RECORD

404 — GAS DISCOUNT EARNED? — NO

YES

405 — SERVER AUTHORIZES GAS DISCOUNT. SIGNAL TO MARKET POS SYSTEM

406 — DISCOUNT COUPON, BAR CODE, MAG STRIPE, ETC. PROVIDED CUSTOMER

407 — SERVER SENDS AUTHORIZATION TO GAS PUMP CONTROLLER/PIB

408 — CUSTOMER INPUTS AUTHORIZATION (BAR CODE, ID NUMBER, MAG STRIPE) TO PUMP CONTROLLER

408a — CUSTOMER AUTHORIZATION AND SERVER AUTHORIZATION SAME? — NO

YES

409 — PUMP CONTROLLER ADJUSTS GAS PRICE FOR AUTHORIZED TRANSACTION

410 — PUMP CONTROLLER NOTIFIES GAS POS OF ADJUSTED PRICE

411 — PUMP CONTROLLER NOTIFIES SERVER THAT TRANSACTION COMPLETED

412 — SERVER UPDATES RECORD TO INDICATE DISCOUNT USED

413 — END

Fig. 10

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ADJUSTABLE PRICE FUEL DISPENSING SYSTEM

BACKGROUND OF INVENTION

This invention is a Continuation-In-Part of U.S. patent application, Ser. No. 09/026,634, filed Feb. 20, 1998 now U.S. Pat. No. 6,112,981, which claims the benefit of U.S. Provisional Application Ser. No. 60/039,007, which was filed Feb. 25, 1997 now expired.

BACKGROUND OF THE INVENTION

This invention relates to retail fuel dispensers and more particularly, to a promotional system utilized in conjunction with a fuel dispenser that will allow promotional discounts and other marketing type offerings to be provided to a consumer based on the customer's purchasing habits.

For more than a decade, retail fuel dispensers have included magnetic strip card readers for reading magnetic strip debit/credit cards. The magnetic strip cards are typically small plastic cards that contain a strip of magnetic material (i.e., magnetic data) that includes information such as an account number and a credit or debit facility (e.g., a bank).

However, many retailers, such as those used by various wholesale food clubs or video stores, have an established customer base that uses bar coded cards. Bar coded cards are also typically small plastic cards, but instead of having a magnetic strip, they contain bar codes (i.e. optical data) that identify a certain account with the retailer. These bar coded cards allow the retailers to provide many benefits, such as providing customers with frequent shopper awards, preventing unauthorized use, providing certain purchase discounts, and identifying an internal payment account.

A problem arises when these retailers, with an established customer base with bar coded cards, wish to sell fuel using conventional fuel dispensers. Because conventional fuel dispensers cannot read bar coded cards, one solution is for the retailers to provide their customers with magnetic strip cards for purchasing fuel in addition to the bar coded card already in use. However, such a solution is not only expensive, it is undesirable for many customers to keep two cards for a single retailer.

Another solution is to require the customers to switch from the bar coded card to the magnetic strip card. This solution is impractical because so many bar coded cards are already in use and it would be very expensive to convert them. Also, many facilities of the retailers already include bar code readers that would require replacement.

Further, there is a growing trend for retailers to offer fuel dispensing facilities. For example, the popularity of "hyper-market" type retail stores or non-traditional retail petroleum marketers has increased dramatically over the past few years Wal-Mart is a typical retailer that uses the hyper-market concept for providing a wide variety of goods and services at a single location. These goods and services have been expanded to now include on site fuel dispensing.

Conventional systems have been developed to identify and reward certain customer purchases by determining from predefined criteria when a customer has purchased certain items from a designated group and rewarding the customer based thereon. Further, rewards may be given based on customer loyalty, i.e. the number of purchases made at a particular store or the quantity of items purchased. One such type of conventional system is commercially available from Catalina Marketing International, Inc. of St. Petersburg, Fla.

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However, conventional customer rewards systems have not been expanded to include fuel dispensing systems. This is due, at least in part, to the fact that hyper-market operators have little control over the fuel dispensing apparatus installed at their facilities. More particularly, the fuel dispensing apparatus providers, such as the Wayne Division of Dresser Industries, Gilbarco and Tokheim control the interface into the pumping system and thus do not provide an externally available interface that will allow the fuel price to be dynamically adjusted in accordance with customer purchases.

Therefore, it can be seen that a system and method that integrates a customer purchase reward system with a fuel dispensing apparatus would be highly desirable. In this manner, the retailer can reward and encourage customer loyalty, and the fuel provider may attract new customers that would not normally purchase their fuel without the incentive of a discounted price.

SUMMARY OF THE INVENTION

The present invention couples a customer reward data processing system with a fuel dispensing apparatus to allow a retailer to authorize discounted fuel or other marketing promotions in accordance with a customer's achievement of predefined purchasing criteria.

Broadly, a data processing system is provided that implements customer rewards and includes a database that creates and maintains records associated with customers that make purchases at an associated store. The reward system will track the customer purchases and compare them with a predefined criteria to determine when a fuel discount is to be provided. These predefined criteria may include whether the customer purchased items from a group of designated products (e.g. promotional items) exceeded a quantity threshold, a dollar value threshold, made purchases made on specific dates, or the like.

When a customer meets one of the predefined criteria, the reward system will authorize a fuel discount or reward and provide the customer with a mechanism to obtain the discounted fuel. This mechanism can include a bar coded receipt, data on a magnetic stripe card, an authorization identification number sequence, or the like. The reward system also notifies a controller in the fuel dispensing apparatus that a discount fuel sale is authorized for a specific authorization code, as well as the amount of the discount, e.g. $0.10 dollars per gallon.

When purchasing fuel, the customer inputs the received authorization code at the pump by scanning in the bar code from the receipt, swiping a magnetic card, entering a code on a key pad, or the like. The pump controller then compares the customer entered authorization code with the code received from the reward system. The pump controller then adjusts the purchase price by subtracting the discount amount and allows the fuel to be dispensed at that rate for this transaction only. At this time a point of sale terminal associated with the fuel dispensing apparatus may also be notified of the adjusted fuel price.

Upon completion of the transaction, the controller notifies the reward system that the discount fuel has been purchased by the customer The reward system then updates the record for this customer accordingly. This information is then available to the retailer that sets the purchasing criteria to use to develop new marketing strategies. That is, the retailer needs to know that a certain promotional activity is working in order to determine whether to continue with the existing purchase criteria or change the criteria to attract a larger number of customers.

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Therefore, in accordance with the previous summary, objects, features and advantages of the present invention will become apparent to one skilled in the art from the subsequent description and the appended claims taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a diagram of a fuel dispenser system embodying features of the present invention.

FIG. 2 is a diagram of a bar code wand used in the fuel dispenser system of FIG. 1.

FIG. 3 is a diagram of a card reader device used in the fuel dispenser system of FIG. 1.

FIGS. 4a and 4b are diagrams of another card reader device used in the fuel dispenser system of FIG. 1.

FIG. 5 is a diagram of another fuel dispenser system embodying features of the present invention.

FIG. 6 is an illustration of a receipt used in the fuel dispenser system of FIG.5

FIG. 7 is an diagram of a kiosk used with a conventional fuel dispenser system for implementing features of the present invention

FIG. 8 is a block diagram of the components that can be utilized to implement the present invention which integrates a customer reward system with an fuel dispenser having a dynamically adjustable price.

FIG. 9 is an example of a record that could be used to track customer eligibility for fuel discount rewards in accordance with the present invention.

FIG. 10 is flowchart of the process implemented by the present invention to encourage customer loyalty by providing discounter fuel based on predefined purchase criteria.

DETAILED DESCRIPTION

In FIG. 1, the reference numeral 10 designates a fuel dispenser system embodying features of one embodiment of the present invention. The fuel dispenser system 10 includes a fuel dispenser 12, which contains many elements of a conventional fuel dispenser such as a fuel nozzle 14 connected to a fuel supply (not shown). The dispenser 12 has a front side 16 and a back side 18. In the following description, only the front side 16 will be discussed for ease of description. However, the features described herein may also be applied on the back side 18, thereby allowing the dispenser to be operated by two customers at the same time.

The front side 16 houses a conventional graphics displays 20 a, 20b and a reader device 22 embodying features of the present invention. The graphics displays 20 a, 20b each include a large, conventional, LCD panel for showing text and numerals, such as a price 24 that corresponds to an amount of fuel dispensed, or other customer-related messages. The reader device 22 includes magnetic strip reading circuitry connected to a controller 26 through a cable 28 such as an RS232 serial data bus. For the sake of example, the controller 26 controls the reader device 22 as well as other functions of the dispenser 12, such as a controller that includes a Customer Activated Terminal ("CAT") computer produced by the Wayne Division of Dresser Industries. Both the controller 26 and the cable 28 are conventional devices housed inside the dispenser 12. It is understood that the reader device 22 and controller 26 continue to provide conventional magnetic strip reading functions in addition to the functions and features herein described.

The controller 26 is also connected to a computing center 30 through a bus 32. In one embodiment, the computing

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center 30 is remotely located inside a store (not shown) or at an unattended site where it may be readily accessed. The computing center 30 includes a point-of-sale ("POS") controller 34. The POS controller 34 includes many features of a conventional electronic cash register, such as a keyboard 36, a display 38, a database 40, a cash drawer 42, and an internal card reader device 44, for use by an operator in charge of overseeing and maintaining the dispenser system 10. It is understood that the database 40 may be remote, and is shown with the POS 34 for ease of description. Also, the POS controller 34 may be in communication with other systems or devices, such as a carwash facility 46.

The database 40 contains a collection of records pertaining to its customers. For example, the store may be a member-oriented retail outlet, and a record for each customer indicates that the customer is a member and a "level" of benefits or privileges that the customer may receive. One level may indicate a first discount to the customer of the goods he purchases while another level may indicate a second discount. The POS controller 34 can thereby receive information from the controller 26, access the database 40, and return control codes which indicate, for example, membership status, level of benefits, or an "OK" signal to allow fuel dispensing.

Referring to FIG. 2, the controller 26 is also connected to one end of a bar code detector 60 with a second cable 62. The bar code detector 60 is a standard, decoded-type handheld stationary beam bar code reader such as the Welsh Allyn model Scanteam ST6180 reader. The bar code detector 60 also includes, at the end opposite the second cable 62, a photo detector 64 and a light source 66. The photo detector 64 may be a photo cell, photo diode or photo transistor, while the light source 66 may be a light emitting diode.

Referring to FIG. 3, the reader device 22 is surrounded by a housing 68 and a hole 70 is established on a side face 71 of the housing near a front face 72. The hole 70 extends to a slot 74 used for receiving cards such as debit/credit cards, but is separated from the slot by a small plastic or glass window (not shown). As a result, the hole 70 does not interfere with any pre-existing circuitry of the reader device 22. The hole 70 is also of sufficient size for viewing one bit of bar coded data at a time. The bar code detector 60 is inserted into the reader device 22 through the hole 70 so that the end with the cable 62 hangs out of the hole. In this way, the photo detector 64 is installed behind the small window and may access cards slid into and out-of the slot 74.

In operation, the reader device 22 receives a bar coded card 80. As the bar coded card 80 is slid into the slot 74, light from the light source 66 reflects off the bar coded card 80 so that the photo detector 64 can sequentially read bits of optical (bar coded) data 82 stored on the card. The bar code detector 60 interprets the bar coded data 82 and coverts it into ASCII data, which it transmits to the controller 26 through the cable 62. Firmware in the controller 26 detects the presence of the ASCII data and processes it into electronic data, a method similar to that used to process magnetic strip cards. The controller 26, FIG. 1, then transmits the electronic data to the POS controller 34 through the bus 32. The POS controller 34 uses the electronic data in order to secure payment in accordance with the data, such as by forwarding the electronic data to a credit card processing network (not shown) for authorization and/or charging the sale to an account associated with the electronic data. The POS controller 34 then returns one or more control codes that direct the controller 26 to allow fuel to dispense and potentially, to indicate any discounts to be provided.

In another embodiment, FIGS. 1 and 2, the bar coded data 82 is processed by the POS controller 34 and a local billing

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file is established for billing the customer later. It is also possible for the POS controller 34 to have a local negative file of all invalid account numbers or a local positive file of all valid card numbers. In such cases the electronic data could be kept and billed locally, or forwarded in "batches" to another computer on-site or off-site for billing. The electronic data provided by the bar code detector 60 can also be differentiated from electronic data conventionally read from a magnetic strip card by the reader 22. This differentiation may, for example, be used for frequent shopper tracking and awards, or for providing a price discount, described in greater detail below.

Referring to FIGS. 4a and 4b, in another embodiment, a reader device 90 is used in place of the reader device 22 (FIG. 3). Instead of having the roundish hole 70 for the wand of the bar code detector 60, the reader device 90 includes a rectangular-shaped window 92 for simultaneously viewing all of the bar coded data. The window 92 allows a scanning bar code reader 94, such as Symbol model LS1220–1300A produced by Symbol Technologies, Inc., to read the bar coded data 82 on the card 80. The scanning bar code reader 94 has many of the same components as the bar code detector 60, but is advantageous because it moves its light source (not shown) in multiple directions, thereby increasing its ability to read bar coded data. Also, as is the case for the reader device 22 of FIG. 3, the reader device 90 includes conventional magnetic strip circuitry 95 and a magnetic strip reader 96 to read conventional magnetic strip data.

In operation, the reader device 90 receives the card 80. The card 80 has the bar coded data 82 and may also include magnetic strip data 104 stored thereon. The reader device 90 reads the magnetic strip data 104 in a conventional manner with the magnetic strip reader 96 and reports it to the controller 26 through the cable 28, as is done in the device 22 (FIG. 3). To read the bar coded data 82, the card 80 is slid into a slot 106 of the device 90 until the bar coded data 82 is fully exposed in the window 92. Light from the light source of the scanning bar code reader 94 reflects off the bar coded data 82, thereby allowing the reader to read the data. The scanning bar code reader 94 interprets the bar coded data 82 and coverts it into ASCII data, which it then transmits to the controller 26 through the cable 62. Firmware in the controller 26 detects the presence of the ASCII data and processes it into electronic data, a method similar to that used to process magnetic strip cards and described with reference to FIG. 3, above. It is understood that different combinations of bar coded and magnetic strip data are expected, and the card 80 is meant to illustrate only some of the combinations. In typical operation, a successful product scan is acknowledged by an audiovisual signal by connection to the POS controller 26.

A benefit of the modified reader devices 22, 90 is that their modification can be done very easily, while maintaining full functionality of the remaining components. Also, the modification can be sold as a kit to simply replace the previous, conventional magnetic-strip-only reader devices with the improved devices 22, 90. Other modifications can easily be supported, such as using a single cable instead of two cables 28, 62, or sharing some or all of the circuitry 95 for use in bar coded and magnetic data interpretation.

Referring to FIG. 5, the reference numeral 110 refers to a fuel dispenser system embodying features of another embodiment of the present invention. The fuel dispenser system 110 contains a fuel dispenser 112 connected to the computing center 30 and many components similar to those in the fuel dispenser system 10 (FIG. 1), such components being similarly numbered.

A front side 116 houses the conventional graphics displays 20a, 20b and (optionally) a conventional magnetic-strip-only reader device 118. The front side 116 also houses a scanning bar code reader 120. The magnetic strip reader device 118 and scanning bar code reader 120 are connected to the controller 26 through cables 28, 62 respectively. The scanning bar code reader 120 is similar to the reader 94 (FIGS. 4a, 4b) in that it moves its light source (not shown) in multiple directions, thereby increasing its ability to read bar coded data. By being placed directly on the front side 116, the scanning bar code reader 120 realizes several additional benefits discussed in greater detail, below.

In operation, the bar coded card 80, discussed above, may simply be placed or waved in front of the scanning bar code reader 120. At this time, light from the light source projected from the scanning bar code reader 120 reflects off the bar coded card 80 so that a photo detector (also not shown) can read the bar coded data 82. The scanning bar code reader 120 interprets the bar coded data 82 and converts it into ASCII data (or data in any other suitable format), which it transmits to the controller 26 through the cable 62. Firmware in the controller 26 detects the presence of the data and processes it into electronic data, a method similar to that used with the bar code reader 60 and described with reference to FIG. 3, above.

Referring to FIG. 6, another benefit provided by the scanning bar code reader 120 is that it can read bar coded data from items other than bar coded cards. The reference numeral 130 designates a paper receipt with bar coded data 132 printed thereon. The receipt 130 may also be placed or waved in front of the scanning bar code reader 120, as described above with reference to FIG. 5.

Referring to FIG. 7, in another embodiment, a separate system, such as a kiosk 140, may be provided to interface with one or more conventional fuel dispensers 142. The kiosk 140 includes a scanning bar code reader 144, a display screen 146, and a keypad 148. The kiosk 140 is in communication with the computing center 30, discussed above, which in turn is in communication with the controller 26 of the conventional dispenser 142. By using the kiosk 140, the features of the present invention may be achieved without physically modifying the fuel dispenser system 142.

Listed below are several examples of how the fuel dispenser systems described above may be used. It is understood that the functionality described below is interchangeable with the different systems, and is not meant to be an exhaustive list.

EXAMPLE A (FIGS. 5–6)

1. A customer enters a store and purchases, among other things, $10 worth of gasoline.
2. The store gives the customer a receipt (similar to the receipt 130) which includes a description of the purchases and bar coded data (similar to bar coded data 132) indicating the prepaid $10 amount.
3. The customer places the receipt in front of the scanning bar code reader 120 and then operates the fuel dispenser 110 to dispense $10 worth of gas.

EXAMPLE B (FIGS. 5–6)

1. A customer enters a store and purchases several items.
2. The store, which has a reward program that gives free gasoline, gives the customer a receipt (similar to the receipt 130) having bar coded data (similar to bar coded data 132) indicating a free $1 worth of gasoline.

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3. The customer collects four more receipts over several visits to the store, each indicating a free $1 worth of gasoline.
4. The customer sequentially places the five receipts in front of the scanning bar code reader **120**, and then operates the fuel dispenser **110** to dispense $5 worth of gas.
5. The customer also inserts a magnetic strip credit card into the magnetic strip reader device **118** to allow an additional amount of gasoline to be dispensed. A charge for the additional amount is reported to a credit agency identified by the magnetic strip credit card.

EXAMPLE C (FIG. 7)

1. A customer obtains a bar coded card (similar to the card **80**) indicating a "member" status (e.g., the customer is eligible for certain benefits).
2. The customer places the card near the scanning bar code reader **144** of the kiosk **140**. The card identifies an account and an appropriate benefit (e.g., a 10¢ per gallon discount).
3. The customer enters on the keypad **148** a number identifying the fuel dispenser **142**.
4. The customer operates the fuel dispenser **142** to dispense gasoline and the account is credited for the purchase (adjusted by the 10¢ per gallon discount).

EXAMPLE D (FIGS. 1–3)

1. A customer obtains a bar coded card (similar to the card **80**) which identifies a first account for a store and a conventional magnetic strip credit card which identifies a second account with a bank.
2. The customer approaches the fuel dispenser **12** associated with the store and places the bar coded card into the reader **22**.
3. The customer then places the magnetic strip credit card into the reader **22**.
4. The customer operates the fuel dispenser **12** to dispense gasoline and the second account is credited for the purchase.
5. The store records a data record in the first account of the customer's fuel purchase.
6. Steps 2–5, above, are repeated four more times.
7. The fuel dispenser **12** displays on the screen **20b** a message:

BECAUSE YOU HAVE PURCHASED FUEL HERE
FIVE TIMES IN THE LAST THIRTY DAYS, YOU
MAY HAVE A COMPLIMENTARY CAR WASH

---

and provides the customer with a predetermined number.
8. The customer drives to the nearby carwash facility **46** and enters the predetermined number on an attached keypad (not shown).
9. The carwash facility **46** interprets the predetermined number to identify that the customer has a complimentary carwash and performs the carwash service.

It should be noted that the carwash facility **46** described in Example D above may also have a bar code reader connected to the computing center **30**. In this way, the carwash facility **46** may provide similar functions as those described above with the reader **22**. Also, the carwash

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facility **46** and fuel dispenser **12** may be in communication so that instead of providing a predetermined number, a record associated with the bar coded card is stored indicating the complimentary carwash.

Referring to FIG. **8**, a block diagram of the components included in a preferred embodiment are shown and will now be described. A market point of sale (POS) terminal **200** is shown that may be located in a retail store, or the like. For example a Wal-Mart store is one type of retail outlet that may include a POS **200** in accordance with the present invention. Reference numeral **201** represents an item to be purchased by a customer in the retail store including POS **200**. It is the usual case that each item will include stock keeping unit (SKU) number, as well as a Universal Purchase Code (UPC) that is provided as an optically scannable bar code **202**. When purchasing the item **201**, a customer will present the item at POS **200** where it will be scanned in or otherwise entered.

A server data processing system **204** is shown and coupled with POS **200**. Server **204** may be a commercially available workstation computer from one of the various computer manufacturers, such as Compaq Computer, IBM Corporation, Hewlett Packard, or the like. A database **206** is linked to server **204** and includes multiple records **208** that correspond to customers purchasing items through POS **200**. It should be noted that many POS terminals **200** are contemplated as being connected to server **204** and may be distributed remotely across more than one store. Server **204** will include software that manages the transactions occurring on POS **200**, as well as the records **208** in database **206**. In a preferred embodiment, database **206** may be magnetic storage media, optical storage or the like.

Upon completion of a purchase transaction at POS **200**, the customer (if eligible) will be provided with a mechanism **210** that will allow discounted fuel to be purchased at pump **112**. That is a receipt, such as receipt **130**, discussed above, having a bar code **132** thereon may be provided to the customer. Additionally, a card with a magnetic stripe may be updated by POS **200** with information authorizing a fuel discount. Further, an identification code may be provided to the customer which can then be entered on a keypad included in the pump input/output I/O device **212**. It will be understood that I/O device **212** may also include a magnetic card reader **118**, bar code reader **120**, or the like. Pump **112** also includes controller **26** that is electrically coupled to server **204** and printer **214**. Controller **26** includes a microcontroller that processes and controls the various activity at pump **112**. Peripheral interface board (PIB) **216** or other device is included in a preferred embodiment to provide an interface between server **204** and controller **26**. PIB **216** allows the control signal output by server **204** to be interpreted by controller **26**. That is, PIB **216** receives the control signal from server **204** with the authorization code and the unit price discount offered to the customer. Interface board **216** will then issue an command to controller **26** to map the discount amount to each of the fueling point product select positions, i.e. regular, premium, etc. In one example, the discount value range may be encoded as an eight bit value to give **256** different discount amounts. In this manner, the server **204** will be able to authorize a price discount, PIB **216** will then issue a command compatible with controller **26** to cause pump **112** to dispense fuel at the discounted unit price.

It should be noted that while a single retail store and corresponding fuel dispensing facility have been shown in FIG. **8** and described above, the present invention contemplates the situation where an entire chain of stores or related stores may be interconnected such that any one of their POS

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terminals can be connected to a server through a network. Further, numerous fuel stations can also be coupled to a server to allow discounted fuel in response to customer purchases at one of the associated stores. For example, Wal-Mart and Starbucks may form an alliance such that purchases from one or the other (or both) stores can cause fuel discounts to be made available. A POS terminal in either store can be coupled to a server that maintains customer records. Also, fuel companies can also form alliances such that Texaco and Mobil can have their pump controllers connected to the same server. In this manner a customer may be entitled to fuel at a reduced unit cost based on purchases made at any Wal-Mart or Starbucks store nationwide, and be able to redeem that discount at any Texaco or Mobil station independent of geographic location. Further, it can be seen that with the Internet it is possible to connect virtually any retailer wishing to offer discounted fuel based on predefined purchase criteria with virtually any fuel station without geographic boundary. Discounts may also be offered for purchase of items other than fuel, such as in the case of a POS 30, discussed above, located at a convenience store or other retailer.

FIG. 9 is a more detailed view of the fields that may be included in record 208 corresponding to a particular customer, e.g. A. Smith. As shown in field 300 of FIG. 9, the customer name is provided along with an identification number. For new customers, or when the system of the present invention is first installed, a record will be created when the first item is purchased at POS 200.

The date of purchase when at least one item was purchased at POS 200 of an associated retailer is provided in field 302. The dollar value of the purchases is listed in field 304. Retailers may often designate various items to trigger discounts related to competing or related items. The quantity of these designated, or trigger items, that were purchased on each date (if any) are provided in field 306. As an example of a trigger item, a certain brand of baby formula may be purchased which will cause a coupon to be generated for a competing baby formula. Also, complementary items may be used as trigger items. That is, the purchase of cereal may trigger a coupon for a discount on milk.

Field 308 is the total quantity of items purchased by a certain customer on a specific date. This field, along with field 304 can be used as a criteria for determining customer loyalty. Field 310 will include data representing the availability of a fuel discount. The record will be updated in field 312 when a discount is actually used by a customer and the discount amount is provided in field 314. Fields 316, 318 and 320 provide totals for the dollar value fields 304, designated items purchased 306 and total quantity 308, respectively.

As an example, when A. Smith purchases $20 of merchandise on Jan. 5, 1999, record 208 is created by server 204 and stored in database 206. At that time three (3) designated items were purchased out of a total quantity of five (5) items. These purchases did not meet the established criteria that would cause a discount on fuel to be made available.

Then, on Jan. 17, 1999, A. Smith purchased five designated items, 10 total items for $15.00. This purchase will cause the total designated item purchase by this customer to exceed five and cause a fuel discount to be offered. Thus, field 310 will indicate that a fuel discount was offered to A. Smith on Jan. 17, 1999. The discount amount is noted as $0.10 per gallon in field 314. As noted above, the mechanism by which the discount is offered may be a receipt with a bar code, updated magnetic card, alphanumeric authorization code, or the like.

Further, record 208 shows that this customer took advantage of the discount and used it to purchase fuel on Jan. 20, 1999. It will be understood that this data can then be analyzed to determine the success of the discount program. That is, the predefined purchase criteria can be adjusted as needed to provide the discount for different items, different quantities of the items or a different discount amount.

Returning to the current example, A. Smith returns to the associated store and purchases additional items on Jan. 28, 1999, totaling $45.00. However, at this time A. Smith has not reached the next purchasing criteria threshold that will cause discounted fuel to be offered.

On Feb. 4, 1999, A. Smith once again purchases items from this, or another participating store. This purchase causes the total purchases to exceed $100.00. Also, A. Smith purchased three total items that caused the total quantity of merchandise purchased at this store to be greater than 20 items. In this example, exceeding both of these criteria will trigger a fuel discount. That is, purchasing greater than 20 items within a month will cause a $0.10 fuel discount to be offered and exceeding $100.00 in total purchase price will cause a $0.15 fuel discount. Those skilled in the art will understand that the fuel discount system of the present invention can be designed to offer the highest discount of the two, e.g. $0.15 per gallon, the lowest discount $0.10, an average of the two, or add the discounts and offer a $0.25 per gallon discount to the customer. In any event, it can be seen that information provided in record 208 can be used to monitor a customers status relative to being offered discounted fuel and to determine when such offer is to be made to the customer.

Of course, those skilled in the art will appreciate that many other types of data may be used in addition to, or instead of the various information discussed as an example with regard to FIG. 9. And, it should be understood that the scope of the present invention contemplates such additional information.

FIGS. 10A, 10B and 10C are flowcharts showing the process implemented by the present invention to cause fuel discounts to be made available to eligible customers.

Referring to FIG. 10A, at step 400 the process is started and the customer purchases items at step 401 where the identification code for the purchased items is entered at POS 200. The customer identity is also entered by using a member club card, personal identification number (PIN), or the like, such that an associated record can be created or updated. The data relating to the purchased items is then provided by POS 200 to server 204, at step 402. Server 204 then analyzes the customer record (step 403). That is, server 204 will create a record for a new customer or maintain an existing record by updating it with current purchases for customers already having a record.

At step 404 a determination is made as to whether the current purchases will cause a fuel discount to be offered. As noted above this step may include determining if the customer has purchased certain designated items that will trigger a discount, whether a total dollar value spent exceeds a predefined threshold and/or if a total quantity of items exceeds a threshold.

If at step 404 it is determined that the customer has not yet earned a fuel discount, then the method proceeds to step 413 and ends. However, if at step 404 it is determined that a fuel discount is available, then at step 405 the server authorizes the discount and sends a signal to the market POS termination 200. At step 406, a bar coded discount coupon, alphanumeric authorization code, updated magnetic card or other mechanism is provided to the customer. At step 407, server

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204 sends an authorization signal to PIB 216, which then provides corresponding commands to controller 26 in pump 112. The signal from server 204 will include an authorization code and a discount amount. The customer then inputs the fuel discount authorization code from POS 200 at pump 112 in step 408. More particularly, the customer may swipe a magnetic card, scan in a bar code from a receipt of key in an alphanumeric code at I/O 212 of pump 112. After the customer authorization code is entered the process then compares (step 408a) the authorization code from server 204 with the code from the customer and if a match exists then proceeds to step 409 and adjusts the price of the fuel to be dispensed for this transaction. However, if a match does not occur at step 408a, then an error has occurred or an unauthorized customer is attempting to obtain discounted fuel. When no match occurs the process continues to step 413 and ends without allowing discounted fuel to be dispensed. Of course, those skilled in the art will understand that it is possible to send a notification signal to server 204, gas station POS 34 or another terminal when a match does not occur to indicate a potentially fraudulent user may be attempting to obtain discounted fuel.

At step 410, pump controller 26 notifies gas station POS 34 of the adjusted fuel price such that the fuel sales records will be in order and to ensure that the customer is correctly charged the discounted fuel price. Next, at step 411 pump controller 26 notifies server 204 of completion of the transaction for discounted fuel and readjusts the fuel price to its normal level by mapping the discount amount to zero. Server 204 then updates the customer record 208 in database 206 to reflect that the discount was used. Subsequent to step 412, the process of the present invention continues to step 413 and ends.

Of course, many other configurations are contemplated by the present invention. For example, gas station POS 34 can also be a source of discounted gas. That is, POS 34 may be in a convenience store that also desires to develop customer loyalty by providing fuel discounts. In this scenario, a customer may purchase a certain volume of gas or other items such as candy bars and coffee which triggers a discount in the price of fuel. Authorization can then be provided directly to PIB 216 from POS 34 to adjust the unit price of fuel dispensed from pump112. Additionally, the authorization could be sent to server 204 to update or create customer record 208.

Further, the purchase of fuel at full price could also be used to trigger discounts on items in the retail store having POS 200. For example, when a customer purchases fuel a signal can be sent from controller 26 to PIB 216 to server 204 which then updates and analyzes the customer's record (or creates a record if none exists). If the customer has purchased fuel in excess of a predetermined value (dollar) or quantity (gallons) threshold, then a signal can be sent from server 204 back to controller 26 via PIB 216, to authorize a discount for this customer on merchandise to be purchased at a participating store. More particularly, a bar coded receipt can be printed by printer 214 that the customer can then take to the participating store and redeem for a discount on one or more items purchased as POS 200. When purchased, a signal will be sent to server 204 and the customer record will be updated accordingly.

Other arrangements are also contemplated to implement discounts at the fuel dispensing system or associated store.

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For example, the mechanism 210 may not be needed if other means are provided to identify the customer at either the market POS 200 or the POS 30. In one example, a customer card or number used at the market POS 200 may similarly be used at the gas station POS 30 such that the customer's discount can be automatically applied at the POS 30. Identification may also be accomplished by an initial registration procedure whereby a customer card/number may be matched with the credit or debit account of the customer that the customer utilizes to make purchases at the POS 30. In one example, transponder technology may be utilized at one or both of the market POS 200 or gas station POS 30 to properly identify the customer. Furthermore, the barcode may have some form of embedded security identification information for authenticating the purchase. In other configurations, the peripheral interface board may not be required. Pertaining to the discounts, a variety of arrangements are contemplated. Some examples entail the funding of the discount or reward by third parties other than the supplier of petroleum. Other discounts are offered in the form of a club discount or volume discount. The controller utilized may be any type of hardware device with software programming to implement the intended functions. Although certain preferred embodiments have been shown and described it should be understood that many changes and modifications may be made therein without departing from the scope of the appended claims.

What is claimed is:

1. A system for dispensing fuel, comprising:

a nozzle for dispensing the fuel;

a controller in communication with the nozzle for selectively causing the nozzle to dispense the fuel at a discounted unit price;

a reader connected to the controller for reading data provided by a user and transferring the data to the controller; and

a database for creating and maintaining a record associated with purchases made by the user, the record including the users achievement of a purchasing criteria;

whereby upon receipt of the data, the controller accesses said record and causes the nozzle to dispense the fuel at the discounted unit price associated with the users achievement of the purchasing criteria.

2. A system according to claim 1 wherein said purchasing criteria is encoded into said data.

3. A system according to claim 2 wherein said data comprises optical data.

4. A system according to claim 3 wherein said optical data comprises a bar code included on a receipt provided to the user by a point of sale controller.

5. A system according to claim 1 wherein said reader is capable of reading optical data.

6. A system according to claim 5 wherein said user scans said bar code into said reader and updates said record with the discounted unit price associated with the user based on the purchasing criteria.

7. A system according to claim 6 wherein said purchasing criteria comprises:

a volume of goods purchased by said user;

a volume of services purchased by said user;

a certain type of goods purchased by said user;

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a certain type of services purchased by said user; and

a specific quantity of goods or services purchased by said user over a certain time period.

8. A system according to claim **1** wherein said data comprises magnetic data.

9. A system according to claim **8** wherein said magnetic data comprises a magnetic strip included on a card updated by a point of sale controller.

10. A system according to claim **9** wherein said magnetic data is dependent on purchases made by said user.

11. A system according to claim **10** wherein said reader is capable of reading magnetic data.

12. A system according to claim **11** wherein said user inserts said card into said reader and updates said record with the discounted unit price associated with the user.

13. A system according to claim **12** wherein said purchasing criteria comprises:

a volume of goods purchased by said user;

a volume of services purchased by said user;

a certain type of goods purchased by said user;

a certain type of services purchased by said user; and

a specific quantity of goods or services purchased by said user over a certain time period.

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14. A system for dispensing fuel, comprising:

a nozzle for dispensing the fuel;

a controller in communication with the nozzle for selectively causing the nozzle to dispense the fuel at a discounted unit price;

a reader connected to the controller for reading identification data provided by a user and transferring the identification data to the controller; and

a database for creating and maintaining a record associated with purchases made by the user, the record including the users achievement of a purchasing criteria;

whereby upon receipt of the identification data, the controller accesses said record and causes the nozzle to dispense the fuel at the discounted unit price associated with the users achievement of the purchasing criteria.

15. A system according to claim **14** further comprising a point of sale controller coupled to said database, wherein the record is modified to specify the discounted unit price of said fuel based on purchases made by said user.

* * * * *

UNITED STATES PATENT AND TRADEMARK OFFICE
Certificate

Patent No. 6,321,984 B1   Patented: November 27, 2001

On petition requesting issuance of a certificate for correction of inventorship pursuant to 35 U.S.C. 256, it has been found that the above identified patent, through error and without any deceptive intent, improperly sets forth the inventorship.

Accordingly, it is hereby certified that the correct inventorship of this patent is: Don C. McCall, Cedar Park, TX (US); Dave Embertson, Austin, TX (US); Mike Zahajko, Austin, TX (US); and G. Randy Nicholson, Abilene, TX (US).

Signed and Sealed this Seventeenth Day of July 2012.

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Supervisory Patent Examiner
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A0720

US006332128B1

(12) **United States Patent**

Nicholson

(10) **Patent No.:** US 6,332,128 B1

(45) **Date of Patent:** Dec. 18, 2001

(54) **SYSTEM AND METHOD OF PROVIDING MULTIPLE LEVEL DISCOUNTS ON CROSS-MARKETED PRODUCTS AND DISCOUNTING A PRICE-PER-UNIT-VOLUME OF GASOLINE**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/253,275**

(22) Filed: **Feb. 19, 1999**

Related U.S. Application Data

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(51) **Int. Cl.^{7}** **G06F 17/60**
(52) **U.S. Cl.** 705/14; 235/381; 235/375; 235/378; 235/380
(58) **Field of Search** 705/14, 10, 416; 235/383

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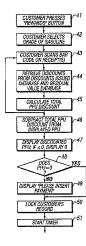
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(74) *Attorney, Agent, or Firm*—Smith, Danamraj & Youst, P.C.

(57) **ABSTRACT**
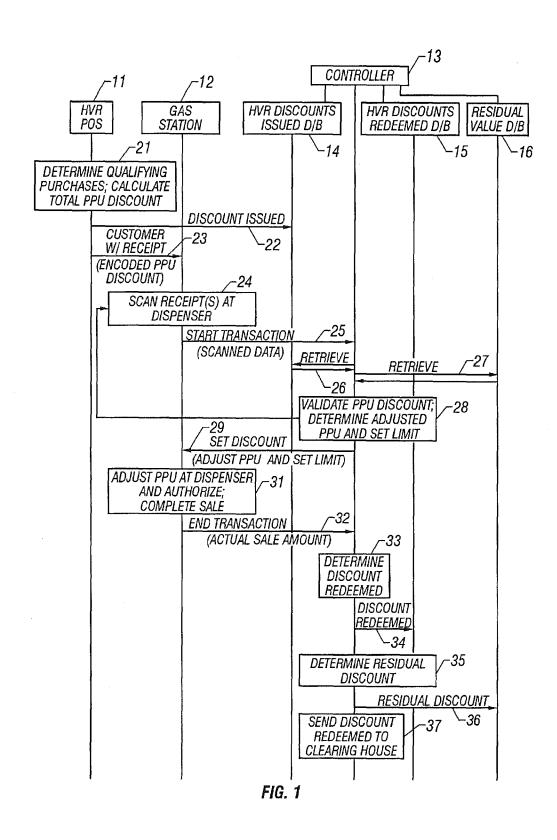
A method of providing multiple level, price-per-unit (PPU) discounts on gasoline to a customer who purchases at least one cross-marketed product. The customer is awarded a first PPU discount on the gasoline based on a purchase by the customer of a first cross-marketed product, and is awarded a second PPU discount based on the purchase of a second cross-marketed product. The first discount is then added to the second discount to determine a total PPU discount, and a paper receipt is printed for the customer with a customer identification and a transaction identification encoded in a bar code thereon. The total discount is stored in a discounts issued database. The customer then scans the encoded bar code with a bar code scanner at a gasoline dispenser to redeem the discount. The total discount is retrieved from the discounts issued database, and the gasoline station then reduces the price-per-unit-volume of the gasoline by an amount equal to the total discount. When the customer completes the gasoline purchase, a value of the total discount redeemed is determined and stored in a discounts redeemed database. Portions of the discount redeemed are then allocated to vendors of the first and second cross-marketed products according to predetermined criteria.

27 Claims, 6 Drawing Sheets
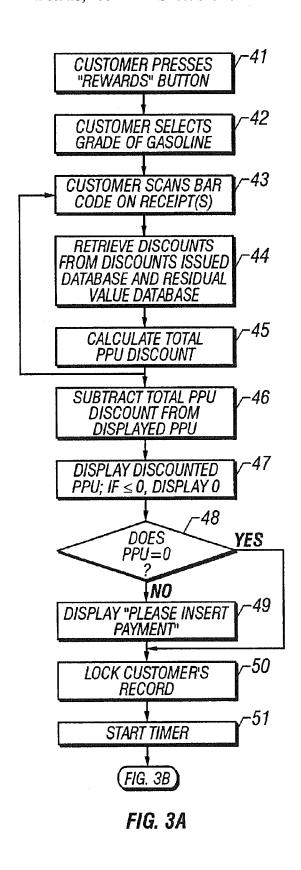
FIG. 1

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FIELD #	FIELD	DESCRIPTION	TYPE	MIN	MAX	EXAMPLE
1	DISCOUNTREFNO	MATCHES CUSTOMER'S RECEIPT WITH THIS RECORD	NUMERIC	20	20	12345612345600000001
1a	DISCOUNTCHAIN	CHAIN IDENTIFIER	NUMERIC	6	6	123456
1b	DISCOUNTSTORE	STORE IDENTIFIER	NUMERIC	6	6	123456
1c	DISCOUNTID	SITE-UNQUE DISCOUNT IDENTIFIER	NUMERIC	8	8	00000001
2	SALEDATE	LOCAL DATE OF POS SALE	DATE	8	8	19990125
3	SALETIME	LOCAL TIME OF POS SALE	TIME	8	8	090000
4	SALEPOSID	SITE-RELATIVE IDENTIFIER OF POS THAT ISSUED DISCOUNT	ALPA-NUMERIC	0	6	L45
5	UNITDISCOUNT	DISCOUNT IN CENTS PER FUEL UNIT VOLUME	NUMERIC (FLOAT)	4	5	0.15
6	DISCOUNTMAXUNTIS	MAXIMUM FUEL UNITS AUTHORIZED FOR SALE AT DISCOUNT PRICE	NUMERIC	1	4	12
7	TOTALDISCOUNT	DISCOUNT EXPRESSED AS AMOUNT TO BE DEDUCTED FROM TOTAL SALE	NUMERIC (FLOAT)	3	5	2.75
8	DISCOUNTMINUNITS	MINIMUM FUEL UNITS THAT MUST BE PURCHASED TO QUALIFY FOR DISCOUNT	NUMERIC	1	3	5
9	DISCOUNTEXPIRES	LOCAL DATE OF LAST DAY THAT DISCOUNT IS VALID	DATE	8	8	19990210
10	COUPONIDS	LIST OF COUPON IDS THAT MADE UP THIS DISCOUNT	NUMERIC (WITH SUB-FIELDS)	0 EACH 0 TOTAL	5 EACH 179 TOTAL	23-171-999-19713-2123
11	COUPONCOUNT	NO. OF COUPONS THAT MADE UP THIS DISCOUNT	NUMERIC	1	2	5
12	LOYALTYCARDID	LOYALTY CARD IDENTIFIER	NUMERIC	1	16	3456

FIG. 2

CUSTOMER PRESSES "REWARDS" BUTTON — 41

CUSTOMER SELECTS GRADE OF GASOLINE — 42

CUSTOMER SCANS BAR CODE ON RECEIPT(S) — 43

RETRIEVE DISCOUNTS FROM DISCOUNTS ISSUED DATABASE AND RESIDUAL VALUE DATABASE — 44

CALCULATE TOTAL PPU DISCOUNT — 45

SUBTRACT TOTAL PPU DISCOUNT FROM DISPLAYED PPU — 46

DISPLAY DISCOUNTED PPU; IF ≤ 0, DISPLAY 0 — 47

DOES PPU=0 ? — 48

YES

NO

DISPLAY "PLEASE INSERT PAYMENT" — 49

LOCK CUSTOMER'S RECORD — 50

START TIMER — 51

FIG. 3B

FIG. 3A

FIG. 3B

FIG. 3B

DETERMINE DISCOUNT VALUE REDEEMED — 70

DOES DISCOUNT ISSUED HAVE RESIDUAL VALUE ? — 71

YES

ADD NEW RESIDUAL VALUE RECORD TO RESIDUAL VALUE D/B — 72

PRINT RESIDUAL VALUE COUPON FOR CUSTOMER — 73

NO

DELETE OLD RESIDUAL VALUE RECORD FROM RESIDUAL VALUE D/B — 74

DELETE DISCOUNT FROM DISCOUNTS ISSUED D/B FOR I.D. USED — 75

UNLOCK CUSTOMER'S RECORD — 76

ADD DISCOUNT TO DISCOUNTS REDEEMED D/B — 77

FIG. 3C

A0726

FIG. 4

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SYSTEM AND METHOD OF PROVIDING MULTIPLE LEVEL DISCOUNTS ON CROSS-MARKETED PRODUCTS AND DISCOUNTING A PRICE-PER-UNIT-VOLUME OF GASOLINE

This appln. claims benefit of Prov. No. 60/093,813 filed Jul. 23, 1998.

BACKGROUND OF THE INVENTION

1. Technical Field of the Invention

This invention relates to the generation and redemption of discount coupons for multiple vendors and, more particularly, to a system and method of controlling tile generation, distribution, and redemption of coupons, and the allocation of discounted values to multiple vendors involved in cross-marketing ventures.

2. Description of Related Art

Vendors of various products often find it desirable to enter into cross-marketing agreements in which the purchase of a product from a first vendor earns a discount coupon for the consumer on a product from a second vendor. As used herein, the term "vendor" refers to the manufacturer of a specific product or the supplier of specific services. The term "high volume retailer (HVR)" refers to the store where the products or services are purchased, such as grocery stores, discount stores, warehouse stores, supercenters, etc.

Systems and methods exist which track the redemption of such cross-marketing coupons and control the allocation of discounted values between the vendors. These systems and methods, however, do not enable vendors to associate issued coupons directly with specific customers or transactions. Nor do existing systems and methods generate coupons or rewards applicable to discounts on the price per unit of a cross-marketed product such as gasoline which is sold by the gallon or liter. In addition, existing systems and methods are not flexible and do not enable a vendor to offer variable discounts which increase if a customer purchases a plurality of cross-marketed products or purchases products from a plurality of cross-marketing vendors. The discount amount is fixed for each purchase.

This is a disadvantage if vendors attempt to use existing systems and methods to cross-market a consumable such as gasoline which is sold at a particular price per gallon. Since the total amount of a gasoline purchase generally cannot be determined in advance, a discount for a particular amount may not be appropriate. For example, a $5.00 discount is not appropriate if the consumer fills up an automobile with gasoline, and the total charge is only $4.00. In addition, studies have shown that it is more attractive to consumers of gasoline to receive a discount on the price per gallon than it is to receive a fixed discount on the total purchase. Current control systems and methods cannot handle a discount on the price per gallon since the total discount is not known before the purchase is completed.

An additional problem with existing systems and methods for tracking and allocating discount coupons is that they do not allow for cumulative savings based on the purchase of multiple cross-marketed products. It would be desirable to gasoline vendors to have a method which would allow the application of varying discounts to the price per gallon based on the number of cross-marketed products purchased. For example, if the gasoline vendor had a cross-marketing agreement with various vendors of products sold by a HVR merchant, the purchase of Product A could result in a discount in the price of the gasoline of $0.02 per gallon.

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Likewise, the purchase of Product B could result in a discount in the price of the gasoline of $0.02 per gallon. If the consumer buys both products, it would be desirable to discount the price of the gasoline by $0.04 per gallon. Existing systems and methods do not perform this function.

Although there are no known prior art teachings of a solution to the aforementioned deficiency and shortcoming such as that disclosed herein, several references discuss subject matter that bears some relation to matters discussed herein. U.S. Pat. No. 5,173,851 to Off et al. (Off) discloses a system for creating discount coupons in response to the purchases of products. Off includes a process in which a coupon is issued in response to the purchase of multiple triggering items. However, the coupon is for a predetermined amount, and is not variable. Multiple items must be purchased in order to qualify for the fixed discount.

U.S. Pat. No. 4,949,256 to Humble (Humble) discloses a coupon validation network for automatically processing product coupons. Databases are maintained for coupons issued by manufacturers and for coupons redeemed by retailers. The system enables retailers to automatically process coupons presented for redemption by consumers, and enables manufacturers to conveniently reimburse retainers for the value of the redeemed coupons. However, Humble does not teach or suggest a system or method of handling multiple level discounts or discounts on the basis of a price per gallon.

Review of each of the foregoing references reveals no disclosure or suggestion of a method such as that described and claimed herein. In order to overcome the disadvantage of existing solutions, it would be advantageous to have a method which enables vendors to associate issued coupons directly with specific customers or transactions, and which allows the application of multiple level discounts to the price per gallon of gasoline based on the number of cross-marketed products purchased. The present invention provides such a method.

SUMMARY OF THE INVENTION

In one aspect, the present invention is a method of providing multiple level discounts on a first product to a customer who purchases at least one cross-marketed product. The method comprises the steps of awarding a first discount on the first product to the customer based on a purchase by the customer of a first cross-marketed product, awarding a second discount on the first product to the customer based on a purchase by the customer of a second cross-marketed product, adding the first discount to the second discount to determine a total discount on the first product, and awarding the total discount to the customer.

In another aspect, the present invention is a method of providing a discount on a first product to a customer who purchases at least one cross-marketed product. The method begins by awarding a first discount on the first product to the customer based on a purchase by the customer of a first cross-marketed product, and then issuing a coupon to the customer which provides a customer identification and a transaction identification. A discount amount is stored in a discounts issued database which associates the discount amount with the customer identification and the transaction identification. This is followed by inputting, by the customer in a subsequent transaction, the customer identification and the transaction identification, retrieving the discount amount from the discounts issued database, and reducing the price of the first product by the discount amount.

In yet another aspect, the present invention is a method of providing multiple level discounts on gasoline to a customer

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who purchases at least one cross-marketed product. The method includes the steps of awarding to the customer, a first discount on the price-per-unit-volume of the gasoline based on a purchase by the customer of a first cross-marketed product, and awarding a second discount on the price-per-unit-volume of the gasoline based on the purchase of a second cross-marketed product. The first discount is then added to the second discount to determine a total discount on the price-per-unit-volume of the gasoline. A paper receipt is printed for the customer with a customer identification and a transaction identification encoded in a bar code thereon. The total discount, a maximum number of volume units allowed, and a minimum purchase of gasoline required in order to qualify for the discount are stored in a discounts issued database which associates these data with the customer identification and the transaction identification. The customer then scans the encoded bar code with a bar code scanner at a gasoline dispenser. The total discount is retrieved from the discounts issued database, and the gasoline station then reduces the price-per-unit-volume of the gasoline by an amount equal to the total discount. When the customer completes the gasoline purchase, a value of the total discount redeemed is determined. This is followed by verifying that the value of the total discount redeemed is equal to or less than the maximum discount allowed, and verifying that the amount of gasoline purchased is equal to or greater than the minimum purchase required to qualify for the discount. The value of the discount redeemed is then stored in a discounts redeemed database, and portions of the discount redeemed are allocated to vendors of the first and second cross-marketed products according to predetermined criteria.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will be better understood and its numerous objects and advantages will become more apparent to those skilled in the art by reference to the following drawings, in conjunction with the accompanying specification, in which:

FIG. 1 is a message flow diagram illustrating the messages sent between the components of the system of the present invention during a cross-merchandising transaction;

FIG. 2 is a table illustrating an exemplary record format for a Discounts Issued message which informs a system controller of the discounts issued by a grocery store POS terminal;

FIGS. 3A–3C are a flow chart illustrating the steps of the method when a customer redeems an issued discount at a gasoline station; and

FIG. 4 is a flow chart illustrating an overall method of issuing, redeeming, and clearing discount coupons in which the method of the present invention may be practiced.

DETAILED DESCRIPTION OF EMBODIMENTS

The present invention is a method of utilizing electronic coupons for cross-marketing. By making a purchase of one or more products, a customer earns discount credits toward the purchase of another product such as gasoline. For example, if the customer buys Product A from a HVR merchant such as a grocery store or convenience store, she may earn a Price Per Unit (PPU) discount of $0.02/gallon on her next purchase of gasoline at a participating gas station. Her receipt from the grocery store may be imprinted with an encoded bar code which is read by a bar-code reader at the gasoline dispenser. The price of the gasoline is then adjusted to provide her with her discount. The receipt is treated as a legal tender coupon. Therefore, if the discount earned is

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greater than the PPU price of the gasoline, the customer may get a credit back at the end of the transaction for the unused portion of the discount. Alternatively, the coupon can be printed to inform the customer that it is good only up to the PPU price of the gasoline.

The PPU price on the gasoline dispenser can be discounted to multiple levels, depending on the discount which the customer has earned. For example, if the customer also bought Product B which provides a gasoline discount of $0.02/gallon, in addition to Product A, then the system automatically adds the two discounts together to calculate a total discount. Thus, when the customer scans in her receipt and purchases gasoline, she receives a PPU discount of $0.04/gallon.

The system also tracks discounts that are not product-specific. For example, a HVR merchant such as a grocery store may offer a gasoline discount if a customer purchases a threshold amount of groceries over a designated period of time. For example, a purchase of $100 in a single trip may earn a discount of $0.10/gallon, while a purchase of $200 may earn a discount of $0.20/gallon. Alternatively, cumulative purchases over the time period may reach a threshold level and qualify for a discount. For example, purchases totaling $300 in a week may qualify for a $0.10/gallon discount. Additionally, since some products in the store provide a higher margin to the retailer, the grocery store may target the purchases to a specific department such as bakery goods. For example, a $15 bakery purchase may entitle the customer to a $0.04/gallon discount. Other products such as produce need to be sold fairly rapidly to avoid spoilage. These products may also be targeted to provide gasoline discounts.

The customer may also scan in several receipts at the gasoline dispenser and be awarded a cumulative discount. The receipts may be from several visits to a single HVR merchant, or may be from multiple independent HVR merchants. As discussed below, the receipt is encoded to provide the system with the proper information regarding the identity of the customer, the receipt, and the HVR merchant.

Some grocery stores offer frequent shopper cards to their customers which provide discounts on selected products if the card is scanned at the register at the time of purchase. The present invention enables the customer to utilize credits earned on her frequent shopper card to obtain PPU discounts on gasoline. The card may be electronically updated with credits earned at the conclusion of a shopping trip to the grocery store. The credits earned are also printed on the customer's receipt so that she has a record of the discount earned. The credits are then recognized when the customer scans the card at the gasoline station. The credit is then applied to the gasoline purchase. If the entire credit is not utilized, the remaining credit is updated on the card.

The present invention is not limited to any one method of providing the system with data regarding the identity of the customer, the receipt, and the issuing HVR merchant. Thus, for example, the discount may be encoded in a bar code on a printed receipt, it may be transferred by a radio frequency identification (RFID) device, or it may be magnetically encoded on a frequent shopper card or other magnetic medium such as a prepaid card or credit card. The customer may also be given a code number which may be entered at the gasoline dispenser in order to trigger the discount in the price per gallon. A personal identification number (PIN) may be utilized to trigger the discount or to provide security for any form of other electronic coupon.

The gasoline business is highly cost competitive, and customers generally purchase their gasoline at the station

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where they perceive they are getting the best price per gallon. It is difficult, however, for a gasoline retailer to maintain a competitive price advantage because as soon as he lowers his posted street price, his competitors lower their prices to match. The present invention offers a method by which a gasoline retailer can maintain a posted street price (seen by his competitors) while offering his customers the benefit of individualized prices which are discounted from the posted street price. The method also enables gasoline retailers who operate convenience stores in conjunction with their gasoline sales to increase inside sales by offering discounts on gasoline in response to the purchase of goods inside the store.

FIG. 1 is a message flow diagram illustrating the messages sent between the components of the system of the present invention during a cross-merchandising transaction. The system includes a HVR point of sale (POS) terminal 11, a gas station 12, and a controller 13 which is associated with a HVR discounts issued database 14, a HVR discounts redeemed database 15, and a residual value database 16.

When a customer purchases items from the HVR merchant, the HVR POS terminal 11 determines at 21 which purchases qualify for a price-per-unit (PPU) discount on gasoline. A total PPU discount is then calculated by adding each individual PPU discount for which the customer has qualified. Transaction data including an identification of the customer and the total discount issued is sent to the HVR discounts issued database 14 in a Discounts Issued message 22. The customer identification may be utilized to track customer loyalty or, in the case of HVR merchants that require memberships, the customer identification may be utilized to verify membership. At 23, the HVR POS terminal prints a receipt for the customer which includes an encoded customer identification and transaction identification associated with the discount, and the customer takes the receipt to the gas station 12.

Referring briefly to FIG. 2, an exemplary record format is shown for the Discounts Issued message 22 which carries customer, transaction, and store identifications to the HVR discounts issued database 14. Field 1 serves as the key for matching the customer's receipt with a particular discount record. This number may be encoded, for example, in a bar code on the POS sale receipt. Field 1 may be divided into sub-fields 1a–1c. Sub-field 1a identifies the chain to which the HVR store belongs. This number is unique across the discount program, and enables a customer to redeem a discount earned at a particular store in a chain at any other store in the chain. Sub-field 1b identifies the particular store within the HVR chain. This number must be unique within a chain or store ownership group. Sub-field 1c is a site-unique discount identifier which may be utilized in combination with sub-fields 1a and 1b to identify a particular customer or transaction. Sub-field 1c must be unique within a site (chain+store) discount expiration period. Fields 2 and 3 report the date and time of the sale.

Field 4 identifies a particular POS terminal within the identified site for store auditing purposes. Field 5 shows the PPU discount issued in cents per fuel-unit volume (for example, 0.15/gallon). Field 6 shows the maximum fuel units that are authorized for sale at the discounted price, and Field 8 shows the minimum fuel units that must be purchased in order to qualify for the discount. The POS terminal may issue a total discount instead of a PPU discount and, if so, this information is supplied in Field 7. When Field 7 (total discount) is supplied, Field 8 (minimum units) may also be supplied, but Field 5 (unit discount) must not be supplied. Conversely, when Field 5 (unit discount) is

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supplied, Field 6 may be supplied, but Field 7 (total discount) and Field 8 (minimum units) are ignored.

Field 9 provides the local date of the last day that the discount is valid. Field 10 provides a list of logical coupon identifications which made up the discount, and Field 11 provides a count of the number of logical coupons that made up the discount. The coupon IDs may be passed to the HVR discounts redeemed database 15 and to a clearing house (not shown) in a Discounts Redeemed record so that the discount can be allocated to the proper vendors according to predetermined criteria. The discount may be allocated according to negotiated agreements or on a pro rata basis. Field 12 provides a loyalty card identifier for individual customers of stores that use loyalty cards such as frequent shopper cards.

Referring again to FIG. 1, when the customer desires to redeem the discount, the receipt is scanned at 24 by a bar code scanner at the pump dispenser at the gasoline station 12. This causes the dispenser to send a start transaction message 25 to the controller 13. The start transaction message includes the data scanned from the customer's receipt. At 26, the controller retrieves information regarding the issued discount from the HVR discounts issued database 14. At 27, the controller also retrieves information regarding any residual discount that may have been stored in the residual value database 16 from a previous transaction. At 28, the controller validates the scanned data by comparing it with data retrieved from the HVR discounts issued database 14 and the residual value database 16. If the scanned data is valid, the controller adds any residual discount to the discount issued to obtain a total PPU discount. The controller then determines an adjusted PPU price by subtracting the total PPU discount from the normal price. The controller also sets an upper limit on the number of gallons subject to the discount. If the customer scans more than one receipt, the process from steps 24 to 28 is repeated, and the discount associated with each receipt is added to the total PPU discount, and is subtracted from the normal price.

The controller then sends a set discount message 29 to the dispenser and includes instructions to adjust the displayed price per gallon by the amount of the total PPU discount, and to set the maximum limit on the number of gallons that can be purchased at the discounted price. Alternatively, a maximum discount value can be set. If the calculated total PPU discount is greater than the PPU displayed on the gasoline dispenser, the controller sets the displayed PPU price to zero (0). On dispensers that will not display a PPU price of zero, the lowest price which the dispenser will display is shown to the customer. After the sale is complete, and the sale amount is reported to the controller at step 32, the controller sets the sale amount to zero.

At 31, the gasoline station dispenser adjusts the price per gallon on the dispenser, and the dispenser is authorized. When the sale is completed, the dispenser sends an end transaction message 32 to the controller and includes the actual sale amount. The actual value of the discount redeemed is then determined at 33. At 34, the discount redeemed amount is then sent to the HVR discounts redeemed database 15. The HVR merchant can compare data from the HVR discounts issued database 14 and the HVR discounts redeemed database 15 to determine the effectiveness of cross-marketing agreements on various products. The controller determines if there is any residual discount at 35, and if so, sends the residual discount at 36 to the residual value database 16. At 37, the controller sends the discount redeemed to a clearing house (not shown) for allocation to the proper vendors.

FIGS. 3A–3C are a flow chart illustrating the steps of the method when a customer redeems an issued discount at a

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gasoline station. Referring concurrently to FIG. 1 and FIG. 3A, it can be seen at step **41** that the process may be started by having the customer press a "Rewards" button at the gasoline dispenser, and then selecting a grade of gasoline to be purchased at step **42**. Alternatively, the process may be started automatically when the customer selects a grade of gasoline and then at **43**, scans the bar code on the receipt that was printed at the HVR POS terminal. At **44**, the gas station then sends the information scanned from the bar code, which includes the discount reference number, a customer identification, and a transaction identification to the controller **13** which retrieves information relating to the issued discount from the discounts issued database **14**. The controller also retrieves information regarding any residual discount that may have been stored from a previous transaction in the residual value database **16**. The controller then calculates a total PPU discount at step **45** by adding the issued discount to the residual discount, if any. If the customer scans additional receipts, the process repeats steps **42–45** and calculates a total PPU discount that combines the discounts for all scanned receipts.

At **46**, it is determined whether or not the calculated total PPU discount is greater than the PPU displayed on the gasoline dispenser. If not, the method moves to step **47** and subtracts the total PPU discount from the displayed PPU and then displays a new discounted PPU on the dispenser at **48**. However, if the calculated new discounted PPU is less than or equal to zero, the discounted PPU is then set to zero (0) at **47** and is displayed on the dispenser. If the PPU is not zero at **48**, the method moves to step **49** where the display instructs the customer to enter payment, which may be a credit card or dollar bills. If the PPU is zero, the method moves directly to step **50** where the customer's record is locked, and a timer is started at **51**. The method then moves to FIG. 3B, step **55**.

If the timer expires at step **55** before any further action is taken, the method moves to step **56** where the timer automatically ends the transaction. Thus, if the customer finds, for example, that he has no money, or is unable to complete the transaction for any other reason, the next person in line does not get the customer's discount. The customer's record is unlocked at **57**, and the value of the customer's discount is retained.

If the customer presses a "Cancel Transaction" button at **58** before the timer expires at **55**, the method also moves to step **56** where the transaction is canceled and the customer's record is unlocked at **57**, and the value of the customer's discount is retained. If the Cancel Transaction button is not pressed, the method moves to step **59** where the customer enters his payment. At step **61**, it is determined whether or not the customer's credit card is accepted. If not, the method moves to step **56** where the transaction is canceled and the customer's record is unlocked at **57**, and the value of the customer's discount is retained. If the credit card is accepted, the method moves to step **62** where the dispenser is authorized to dispense up to the maximum number of gallons authorized in Field **6** of the Discount Issued message **22** (FIG. 2). The dispenser is automatically shut off if the maximum number of gallons is reached.

It is then determined at step **63** whether or not the customer has dispensed fuel. If not, it is determined at **64** whether or not the timer has expired. If the timer has not expired, the method returns to step **63** and waits for the customer to begin dispensing the fuel. If the customer does not begin dispensing fuel before the timer expires, the method moves to step **65** where the transaction is canceled and the customer's record is unlocked at **66**, and the value

of the customer's discount is retained. If the customer dispenses fuel at **63**, the method moves to step **67** where the customer completes fueling and turns off the dispenser. The method then moves to FIG. 3C, step **70**.

At step **70**, the value of the discount redeemed is determined by multiplying the PPU discount by the number of gallons purchased. The process then moves to step **71** where it is determined whether there is any residual value to the issued discount. If so, the method moves to step **72** where the residual value is added to the residual value database **16** in a new residual value record. For the customer's convenience, the gasoline dispenser may then print a residual value coupon for the customer at **73** which can be utilized to redeem the residual value in a future transaction. Following this, or if the issued discount did not have any residual value, the method moves to step **74** where the old residual value record is deleted from the residual value database. At step **75**, the discount is then deleted from the discounts issued database **14** for the discount reference number utilized. The customer's record is then unlocked at **76**. At **77**, the discount is then added to the discounts redeemed database **15**.

FIG. 4 is a flow chart illustrating an overall method of issuing, redeeming, and clearing discount coupons in which the method of the present invention may be practiced. A vendor **82**, a marketer **83**, a HVR merchant **84**, and a clearing house **85** are involved in the method. Dotted lines in the flow chart represent the passing of settlement information. The HVR merchant may be, for example, a grocery store or convenience store which also sells gasoline to its customers. The HVR merchant utilizes a POS terminal **86** through which sales transactions are processed. The transactions may be categorized as department transactions **87**, loyalty transactions **88**, or vendor transactions **89**. A department transaction **87** may be sales in a particular department such as the bakery department in which the HVR merchant has decided to offer awards for bakery purchases. By purchasing a minimum amount of bakery goods, the customer is issued a discount coupon which is good for a reduction in the PPU price of gasoline at the store. Therefore, fulfillment at **91** and settlement are accomplished within the HVR merchant's own accounting system.

A loyalty transaction **88** may be a transaction in which the customer utilizes a store credit card or frequent shopper card. Fulfillment at **91** and settlement of the gasoline discount for this transaction are also accomplished within the HVR merchant's own accounting system. However, transactions involving the purchase of a participating vendor's products at **89** require fulfillment at **92** and settlement through the clearing house **85** and the marketer **83**.

It is thus believed that the operation and construction of the present invention will be apparent from the foregoing description. While the method shown and described has been characterized as being preferred, it will be readily apparent that various changes and modifications could be made therein without departing from the scope of the invention as defined in the following claims.

What is claimed is:

1. A method of providing multiple level discounts on a price-per-unit (PPU) of a consumable good sold in multiple units to a customer who purchases a plurality of cross-marketed products, said method comprising the steps of:

awarding a first discount on the PPU of the consumable good to the customer in response to a purchase by the customer of a first cross-marketed product;

awarding a second discount on the PPU of the consumable good to the customer in response to a purchase by the customer of a second cross-marketed product;

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adding the first discount to the second discount to determine a total discount on the PPU of the consumable good; and

awarding the total discount to the customer.

2. The method of providing multiple level discounts of claim 1 wherein the customer purchases the first cross-marketed product from a first merchant, and purchases the second cross-marketed product from a second merchant.

3. The method of providing multiple level discounts of claim 1 wherein the consumable good is gasoline, and the first, second, and total discounts are discounts on the price-per-unit-volume of gasoline.

4. The method of providing multiple level discounts of claim 3 further comprising:

issuing an electronic coupon to the customer, said coupon providing a unique customer identification and a unique discount identification; and

storing the total discount in a discounts issued database which associates the total discount with the unique customer identification and discount identification.

5. The method of providing multiple level discounts of claim 4 wherein the electronic coupon is selected from the group consisting of:

a paper receipt with the unique customer identification and discount identification encoded in a bar code imprinted thereon;

a paper receipt with the unique customer identification and discount identification encoded in a code number imprinted thereon;

a frequent shopper card with the unique customer identification and discount identification magnetically encoded thereon;

a prepaid card with the unique customer identification and discount identification magnetically encoded thereon;

a credit card with the unique customer identification and discount identification magnetically encoded thereon;

a radio frequency identification (RFID) device with the unique customer identification and discount identification encoded in a RF transmission; and

a smart card.

6. The method of providing multiple level discounts of claim 5 further comprising the steps of:

inputting the electronic coupon by the customer for redemption at a gasoline station; and

reducing on a gasoline dispenser, the price-per-unit-volume of the gasoline by an amount equal to the total discount prior to the customer dispensing the gasoline.

7. The method of providing multiple level discounts of claim 6 wherein the step of inputting the electronic coupon by the customer for redemption at a gasoline station includes scanning the unique customer identification and discount identification from the encoded bar code with a bar code scanner at a gasoline dispenser, and the method further comprises, after scanning the encoded bar code, the steps of:

associating the unique customer identification and discount identification with the total price-per-unit discount stored in the discounts issued database; and

retrieving the total price-per-unit discount from the discounts issued database.

8. The method of providing multiple level discounts of claim 7 further comprising, after the step of scanning the unique customer identification and discount identification from the encoded bar code, the steps of:

requesting the customer to enter a personal identification number (PIN); and

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verifying the PIN prior to reducing the price-per-unit-volume of the gasoline on the gasoline dispenser.

9. The method of providing multiple level discounts of claim 7 further comprising, after the step of storing the total discount in a discounts issued database, the steps of:

storing, in the discounts issued database, a maximum number of gallons of gasoline to which the discount applies; and

storing, in the discounts issued database, a minimum purchase of gasoline required in order to qualify for the discount.

10. The method of providing multiple level discounts of claim 9 further comprising the steps of:

determining a value of the total discount redeemed;

verifying that the value of the total discount redeemed is less than or equal to the maximum discount allowed; and

verifying that the amount of gasoline purchased is greater than or equal to the minimum purchase required to qualify for the discount.

11. The method of providing multiple level discounts of claim 10 further comprising the steps of:

storing the value of the discount redeemed in a discounts redeemed database; and

allocating portions of the discount redeemed to vendors of the first and second cross-marketed products according to predetermined criteria.

12. A method of providing a discount on a price-per-unit (PPU) of a consumable good sold in multiple units to a customer who purchases at least one cross-marketed product, said method comprising the steps of:

awarding a first discount on the PPU of the consumable good to the customer in response to a purchase by the customer of a first cross-marketed product;

issuing a coupon to the customer, said coupon providing a customer identification and a transaction identification;

storing the first discount in a discounts issued database which associates the first discount with the customer identification and the transaction identification;

inputting by the customer in a subsequent transaction, the customer identification and the transaction identification;

retrieving the first discount from the discounts issued database; and

reducing the PPU of the consumable good by the first discount.

13. The method of providing a discount on a PPU of a consumable good of claim 12 further comprising, after the step of awarding a first discount, the steps of:

awarding a second discount on the PPU of the consumable good to the customer in response to a purchase by the customer of a second cross-marketed product; and

adding the first discount to the second discount to determine a total discount on the PPU of the consumable good.

14. The method of providing a discount on a PPU of a consumable good of claim 12 wherein the first product is gasoline, and the discount amount is a discount on the price-per-unit-volume of gasoline.

15. A method of providing multiple level discounts on gasoline to a customer who purchases at least one cross-marketed product, said method comprising the steps of:

awarding to the customer, a first discount on the price-per-unit-volume of the gasoline in response to a purchase by the customer of a first cross-marketed product;

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awarding to the customer, a second discount on the price-per-unit-volume of the gasoline in response to a purchase by the customer of a second cross-marketed product;

adding the first discount to the second discount to determine a total discount on the price-per-unit-volume of the gasoline;

printing a paper receipt for the customer with a customer identification and a discount identification encoded in a bar code thereon;

storing the total discount in a discounts issued database;

storing, in the discounts issued database, a maximum number of gallons to which the discount applies;

storing, in the discounts issued database, a minimum purchase of gasoline required in order to qualify for the discount;

scanning the encoded bar code with a bar code scanner at a gasoline dispenser;

verifying the discount scanned from the bar code by comparing the scanned discount with the stored discount in the discounts issued database;

reducing, by the gasoline dispenser, the price-per-unit-volume of the gasoline by an amount equal to the total discount;

determining a value of the total discount redeemed;

verifying that the value of the total discount redeemed is less than or equal to the maximum discount allowed;

verifying that the amount of gasoline purchased is greater than or equal to the minimum purchase required to qualify for the discount;

storing the value of the discount redeemed in a discounts redeemed database; and

allocating portions of the discount redeemed to vendors of the first and second cross-marketed products according to predetermined criteria.

16. A method of providing a price-per-unit-volume discount on gasoline to a customer who purchases a cross-marketed product in a sales transaction, said method comprising the steps of:

awarding the price-per-unit-volume discount to the customer in response to a purchase by the customer of a cross-marketed product;

issuing an electronic coupon to the customer, said coupon identifying the customer and the sales transaction;

storing the price-per-unit-volume discount in a discounts issued database which associates the discount with the customer and sales transaction;

storing, in the discounts issued database, a maximum number of volume units of gasoline to which the discount is applied;

storing, in the discounts issued database, a minimum purchase of gasoline required in order to qualify for the discount;

beginning a sales transaction by entering a customer identification and a transaction identification at a gasoline dispenser;

retrieving the price-per-unit-volume discount from the discounts issued database;

reducing, by the gasoline dispenser, the price-per-unit-volume of the gasoline by an amount equal to the discount;

determining a value of the total discount redeemed;

verifying that the value of the total discount redeemed is less than or equal to the maximum discount allowed;

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verifying that the amount of gasoline purchased is greater than or equal to the minimum purchase required to qualify for the discount; and

storing the value of the discount redeemed in a discounts redeemed database.

17. The method of providing a price-per-unit-volume discount on gasoline of claim 16 wherein a residual discount is stored in a residual value database, and the method further comprises, after retrieving the price-per-unit-volume discount from the discounts issued database, the steps of:

retrieving the residual discount from the residual value database; and

adding the residual discount to the price-per-unit-volume discount.

18. The method of providing a price-per-unit-volume discount on gasoline of claim 17 wherein the step of reducing the price-per-unit-volume of the gasoline by an amount equal to the discount includes the steps of:

determining whether the discount is greater than or equal to the price-per-unit volume of the gasoline; and

setting the price-per-unit volume of the gasoline equal to zero on a gasoline dispenser upon determining that the discount is greater than or equal to the price-per-unit volume of the gasoline.

19. The method of providing a price-per-unit-volume discount on gasoline of claim 18 wherein the step of setting the price-per-unit volume of the gasoline equal to zero includes the steps of:

determining whether the dispenser is of a type that can set the price-per-unit volume to zero;

setting the dispenser to the minimum price-per-unit volume that the dispenser allows, upon determining that the dispenser is of a type that cannot set the price-per-unit volume to zero; and

setting a sales transaction value of zero when the transaction is completed.

20. A system for providing multiple level discounts on a price-per-unit (PPU) of a consumable good sold in multiple units to a customer who purchases a plurality of cross-marketed products, said system comprising:

a discounts issued database for storing discounts;

means for calculating a first discount on the PPU of the consumable good in response to a purchase by a customer of a first cross-marketed product;

means for calculating a second discount on the PPU of the consumable good in response to a purchase by the customer of a second cross-marketed product; and

a database controller which adds the first discount to the second discount to determine a total discount for the customer on the PPU of the consumable good.

21. The system for providing multiple level discounts of claim 20 wherein the database controller includes means for adding a first discount from a first merchant to a second discount from a second merchant.

22. The system for providing multiple level discounts of claim 21 wherein the consumable good is gasoline, and the first, second, and total discounts are discounts on the price-per-unit-volume of gasoline.

23. The system for providing multiple level discounts of claim 22 further comprising:

a point of sale (POS) terminal that determines the first discount and issues an electronic coupon to the customer, said coupon providing a unique customer identification and a unique discount identification; and

transmission means for transmitting the unique customer identification and the discount identification from the POS terminal to the discounts issued database.

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24. A system for providing a discount on a price-per-unit (PPU) of a consumable good sold in multiple units to a customer who purchases at least one cross-marketed product, said system comprising:

a point of sale (POS) terminal that awards a first discount on the PPU of the consumable good to the customer in response to a purchase by the customer of a first cross-marketed product, said POS terminal including means for issuing a coupon to the customer, said coupon providing a unique customer identification and a transaction identification;

means for sending the first discount from the POS terminal to a discounts issued database which associates the first discount with the unique customer identification and the transaction identification;

an input device for inputting by the customer in a subsequent transaction, the unique customer identification and the transaction identification;

a database controller that retrieves the first discount from the discounts issued database; and means for reducing the PPU of the consumable good by the first discount in response to instructions from the database controller.

25. The system for providing a discount on a PPU of a consumable good of claim **24** wherein the POS terminal also includes means for awarding a second discount on the PPU of the consumable good to the customer in response to a purchase by the customer of a second cross-marketed product, and the database controller includes means for adding the first discount to the second discount to determine a total discount on the PPU of the consumable good.

26. A system for providing a price-per-unit-volume discount on gasoline to a customer who purchases a cross-marketed product in a sales transaction, said system comprising:

a point of sale (POS) terminal comprising:

means for awarding the price-per-unit-volume discount to the customer in response to a purchase by the customer of a cross-marketed product; and

means for issuing an electronic coupon to the customer, said coupon uniquely identifying the customer and the sales transaction;

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a discounts issued database for storing the price-per-unit-volume discount and uniquely associating the discount with the customer and sales transaction;

transmission means for sending from the POS terminal to the discounts issued database, a maximum number of volume units of gasoline to which the discount is applied, and a minimum purchase of gasoline required in order to qualify for the discount;

an input device at a gasoline dispenser at a gas station for entering a unique customer identification and a transaction identification;

a database controller for retrieving the price-per-unit-volume discount from the discounts issued database, upon associating the unique customer identification and the transaction identification with the stored price-per-unit-volume discount;

means for reducing, by the gasoline station, the price-per-unit-volume of the gasoline by an amount equal to the discount;

means within the database controller for determining a value of the total discount redeemed, verifying that the value of the total discount redeemed is less than or equal to the maximum discount allowed, and verifying that the amount of gasoline purchased is greater than or equal to the minimum purchase required to qualify for the discount; and

a discounts redeemed database for storing the value of the discount redeemed.

27. The system for providing a price-per-unit-volume discount on gasoline of claim **26** further comprising a residual value database for storing a residual discount, and wherein the database controller also includes:

means for retrieving the residual discount from the residual value database; and

means for adding the residual discount to the price-per-unit-volume discount.

* * * * *

United States Patent [19]

Ikeda et al.

[11] **Patent Number:** 5,937,391

[45] **Date of Patent:** Aug. 10, 1999

[54] **POINT-SERVICE SYSTEM IN ONLINE SHOPPING MALL**

[75] Inventors: **Sekio Ikeda; Nobuo Oka; Masao Fujiwara; Michihiro Miyasaka; Shuji Morita; Masakazu Yamashita; Yuka Egashira,** all of Kawasaki, Japan

[73] Assignee: **Fujitsu Limited,** Kawasaki, Japan

[21] Appl. No.: **08/864,971**

[22] Filed: **May 29, 1997**

[30]   **Foreign Application Priority Data**

Jul. 11, 1996 [JP] Japan 8-182556

[51] **Int. Cl.^{6}** **B42D 15/00**

[52] **U.S. Cl.** 705/14; 705/26; 705/27

[58] **Field of Search** 705/14, 26, 27, 705/29

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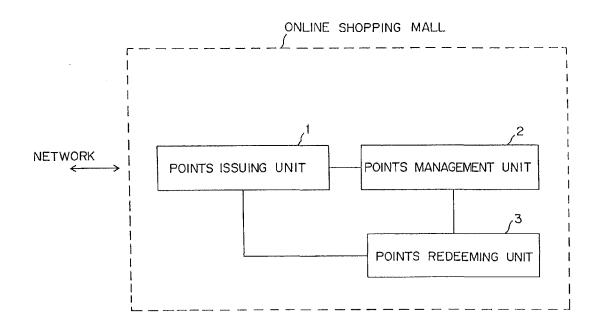
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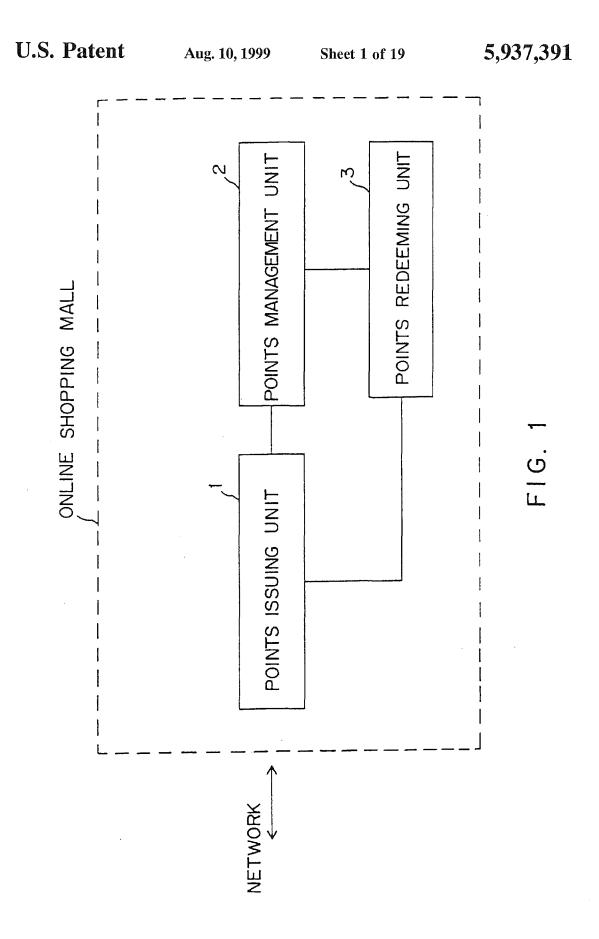
Primary Examiner—Thomas R. Peeso
Attorney, Agent, or Firm—Staas & Halsey LLP

[57]   **ABSTRACT**

A service system in an online shopping mall established through a network realizes an improvement of a service to a customer by not having to carry a magnetic card and shortening a time from issuing points to redeeming points. To attain the objects of the system, a points issuing unit issues points corresponding to the purchase amount of a customer. A points storage device stores the number of points accumulated by the customer. A points redeeming unit reduces a purchase amount of the customer as points to be redeemed. A points issue ratio and a points redeeming ratio can be set for each shop forming part of the online shopping mall.
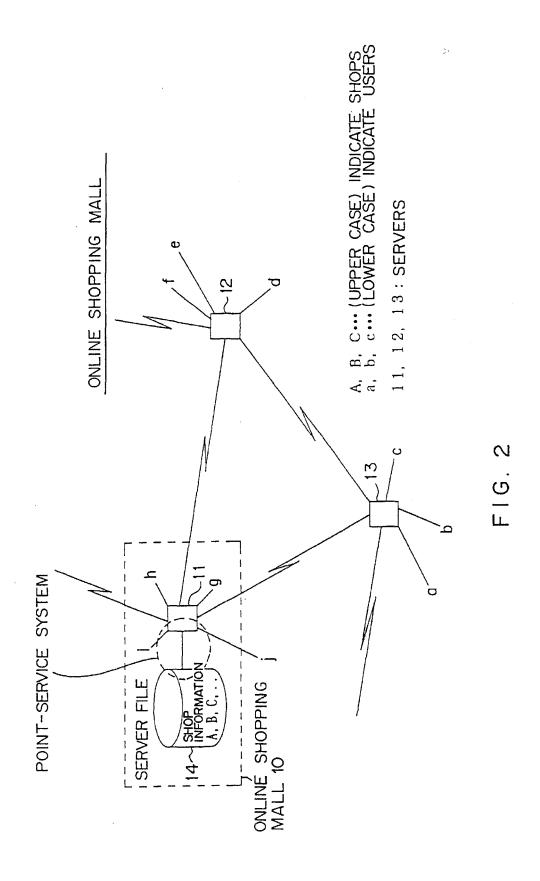
30 Claims, 19 Drawing Sheets

ONLINE SHOPPING MALL

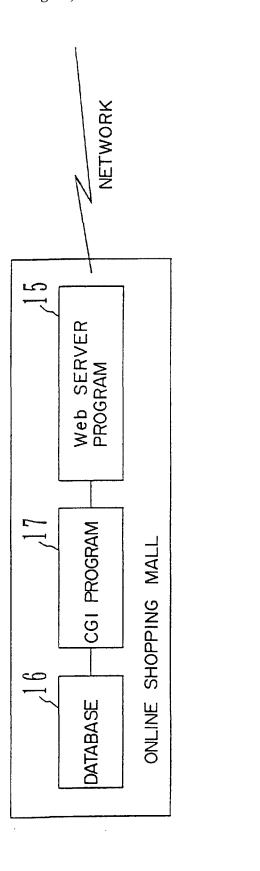

NETWORK

POINTS ISSUING UNIT — 1

POINTS MANAGEMENT UNIT — 2

POINTS REDEEMING UNIT — 3

FIG. 1

FIG. 2

ONLINE SHOPPING MALL

A, B, C··· (UPPER CASE) INDICATE SHOPS
a, b, c··· (LOWER CASE) INDICATE USERS

11, 12, 13 : SERVERS

POINT-SERVICE SYSTEM

SERVER FILE

SHOP INFORMATION A, B, C, ...

ONLINE SHOPPING MALL 10

NETWORK

15 Web SERVER PROGRAM

17 CGI PROGRAM

16 DATABASE

ONLINE SHOPPING MALL

FIG. 3

POINT-SERVICE SYSTEM

20

21

SERVER FILE

POINTS MANAGE-
MENT TABLE
SHOP MANAGE-
MENT TABLE

POINTS ISSUING
PROCESS
PERFORMING
UNIT

22

24

PATROL PROCESS
PERFORMING UNIT

POINTS REDEEM-
ING PROCESS
PERFORMING
UNIT

23

F I G. 4

SHOP

MALL SERVER

TRANSFER SCREEN OF ONLINE
SHOPPING MALL

TRANSFER ORDER SCREEN

ACCEPT ORDER

SALES NOTIFICATION

POINTS PROCESS

POINTS MANAGEMENT TABLE
SHOP MANAGEMENT TABLE

EFFECTIVE POINTS
PROCESS

PAYMENT NOTIFICATION

(ASYNCHRONOUS PROCESS)

CUSTOMER

(1) REQUEST FOR CONNECTION TO
ONLINE SHOPPING MALL

(2) SELECT GOODS ON MALL SCREEN

(3)
(4) REQUEST FOR ORDER SCREEN

(5)
(6) INPUT ORDER CONTENTS THROUGH TERMINAL
TRANSFER ORDER CONTENTS

F I G. 5

FIG. 6

F I G.   7

CUSTOM-ER NAME	PURCHASE DATA	EFFECTIVE TERM	POINTS	NAME OF SHOP	EFFECTIVE FLAG	INFOR-MATION	MANAGEMENT TERM
a	8/ 4/ 1	9/ 4/ 1	200	B	1	9,000	14/ 4/ 1
	8/ 4/ 2	9/ 4/ 2	30	D	1		14/ 4/ 2
	8/ 4/ 8	9/ 4/ 8	100	B	1		14/ 4/ 8
	8/ 4/ 9	9/ 4/ 9	30	B	1		14/ 4/ 9
	8/ 5/ 1	9/ 5/ 1	70	B	0		14/ 5/ 1
b	8/ 4/ 2	9/ 4/ 2	200	A	1	9,000	14/ 4/ 2
	8/ 5/ 2	9/ 5/ 2	50	A	0		14/ 5/ 2
c	8/ 4/10	9/ 4/10	650	C	1	9,000	14/ 4/10

F I G. 8

NAME OF SHOP	POINTS ISSUE RATIO	POINTS REDEEMING RATIO	SPECIAL SERVICE START AND END		PREMIUM POINTS RATIO	
A	1 0 0	1			10,000	2
B	1 0 0	1			10,000	2
C	1 0 0	1			10,000	2
D	1 0 0	1			10,000	2
E	0	0			0	0
F	5 0	2	960101	960630	10,000	2
G	1 0 0	1			10,000	2
H	1 0 0	1			10,000	2
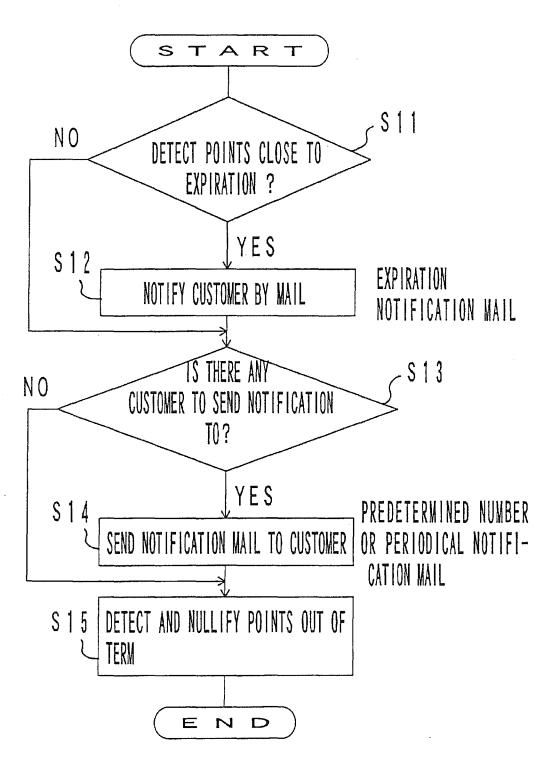
F I G. 9

START

NO

DETECT POINTS CLOSE TO EXPIRATION ? S 1 1

YES

S 1 2 NOTIFY CUSTOMER BY MAIL

EXPIRATION NOTIFICATION MAIL

NO

IS THERE ANY CUSTOMER TO SEND NOTIFICATION TO? S 1 3

YES

S 1 4 SEND NOTIFICATION MAIL TO CUSTOMER

PREDETERMINED NUMBER OR PERIODICAL NOTIFI- CATION MAIL

S 1 5 DETECT AND NULLIFY POINTS OUT OF TERM

END

F I G. 1 0

☐ SPACE SUIT   ☐

☑ SPACE FOOD   10

☐ SPACE SHIP   ☐

SHOPPING   STOP

FIG. 11
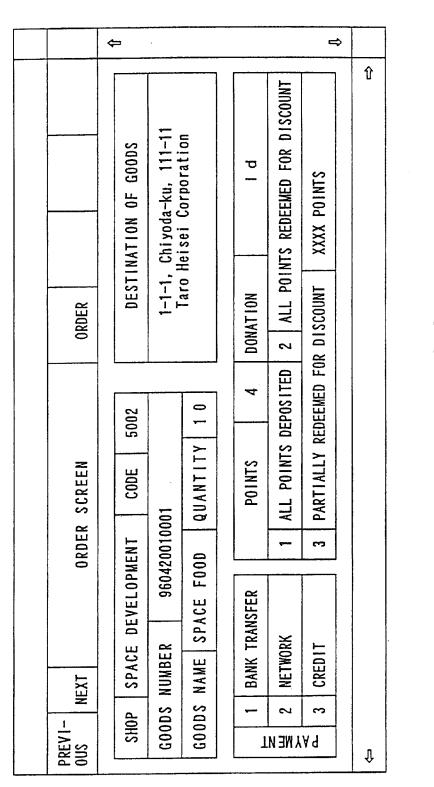
```
<HTML>
<HEAD>
<TITLE>GOODS LIST</TITLE>
</HEAD>
・・・ <BR>
・・・ <BR>
・・・ <BR>
・・・ <BR>
・・・ <BR>
<FORM METHOD=POST ACTION=http://www.mall.aaa.co.jp/cgi-bin/program-a>
<INPUT TYPE="hidden" NAME="personal-ID" CHECKED VALUE="aaa0001">
<INPUT TYPE="hidden" NAME="store-ID" CHECKED VALUE="SPACE DEVELOPMENT">

<INPUT TYPE="checkbox" NAME="prd1">
SPACE SUIT <INPUT TYPE="text" NAME=prd1-num SIZE="2"> <BR>
<INPUT TYPE="checkbox" NAME="prd2">
SPACE FOOD <INPUT TYPE="text" NAME=prd2-num SIZE="2"> <BR>
<INPUT TYPE="checkbox" NAME="prd3">
SPACE SHIP <INPUT TYPE="text" NAME=prd3-num SIZE="2"> <BR>
<INPUT TYPE="submit" VALUE="SHOPPING">
<INPUT TYPE="reset" VALUE="STOP">
</FORM>
・・・ <BR>
・・・ <BR>
・・・ <BR>
```

FIG. 12

PREVI-OUS	NEXT				ORDER

ORDER SCREEN

SHOP	SPACE DEVELOPMENT	CODE	5002
GOODS NUMBER	960420010001		
GOODS NAME	SPACE FOOD	QUANTITY	1 0

DESTINATION OF GOODS

1-1-1, Chiyoda-ku, 111-11
Taro Heisei Corporation

	PAYMENT	POINTS	4	DONATION	d
1	BANK TRANSFER	1	ALL POINTS DEPOSITED	2	ALL POINTS REDEEMED FOR DISCOUNT
2	NETWORK	3	PARTIALLY REDEEMED FOR DISCOUNT		XXXX POINTS
3	CREDIT				

F I G . 1 3

F I G. 1 4

```
                    ┌─────────────────┐
                    │  S T A R T      │
                    └─────────────────┘
                             │
                             │                        S 4 0
        ┌────────────────────────────────────────────────┐
        │ COMPUTE REDEEMING POINTS BASED ON POINTS        │
        │ REDEEMING RATIO OF CURRENT SHOP FROM OLDER POINTS│
        │ OF SHOP WHERE CURRENT PURCHASE IS MADE           │
        └────────────────────────────────────────────────┘

        IF INSUFFICIENT              IF SUFFICIENT

        ┌──────────────────────────────────┐  S 4 1
        │ INSUFFICIENT POINTS ARE COMPENSATED│
        │ BY POINTS OF ANOTHER SHOP FROM OLDER│
        │ POINTS AT APPLICABLE POINTS REDEEMING│
        │ RATIO                              │
        └──────────────────────────────────┘

        ┌──────────────────────────────────┐  S 4 2
        │ ADJUST POINTS FOR ANOTHER SHOP    │
        └──────────────────────────────────┘

                    ┌─────────────────┐
                    │  E N D          │
                    └─────────────────┘
```

F I G.   1 5

NAME OF SHOP	PURCHASE AT SPECIFIC SHOP AND USE POINTS OF ANOTHER SHOP FOR REDEMPTION (X)	PURCHASE AT ANOTHER SHOP AND USE POINTS OF SPECIFIC SHOP FOR REDEMPTION (Y)	(X)-(Y)
A	2 0 0	7 2 5	− 5 2 5
B	5 0 0	0	5 0 0
C	0	5 0 0	− 5 0 0
c	0	0	0
E	0	0	0
F	8 0 5	1, 4 2 5	− 6 2 0
. . .	. . .	. . .	
T O T A L	4 8, 5 2 5	4 8, 5 2 5	0
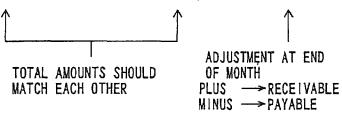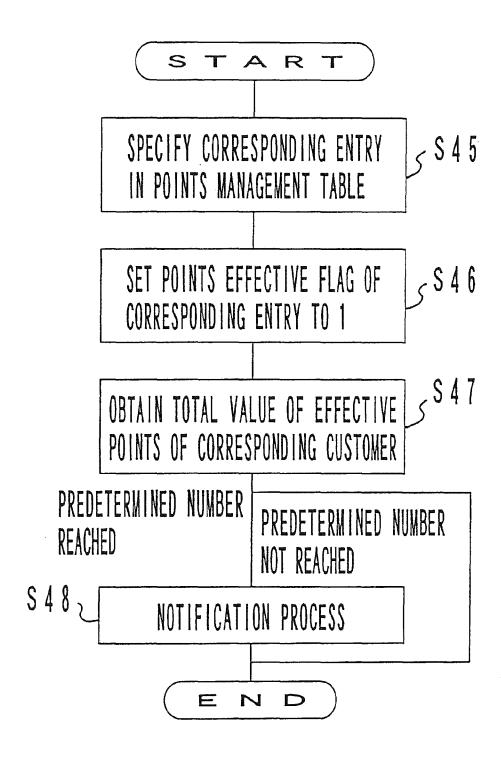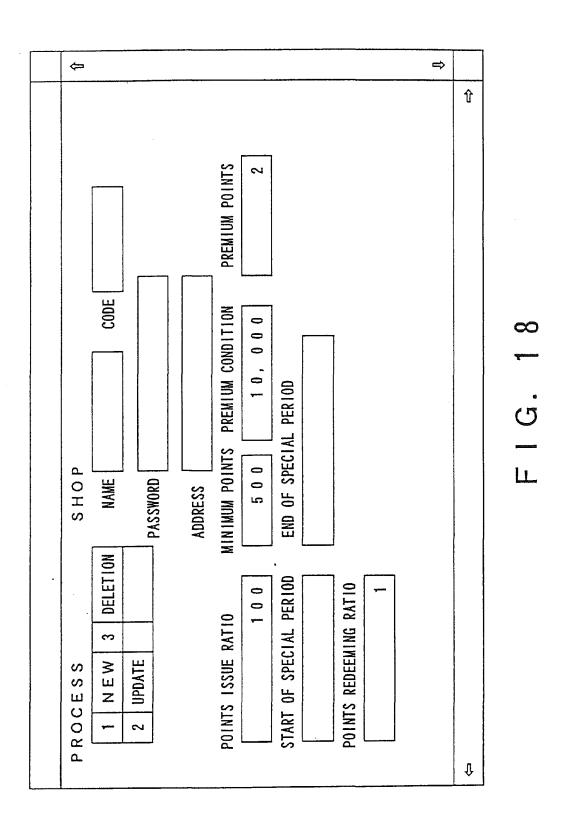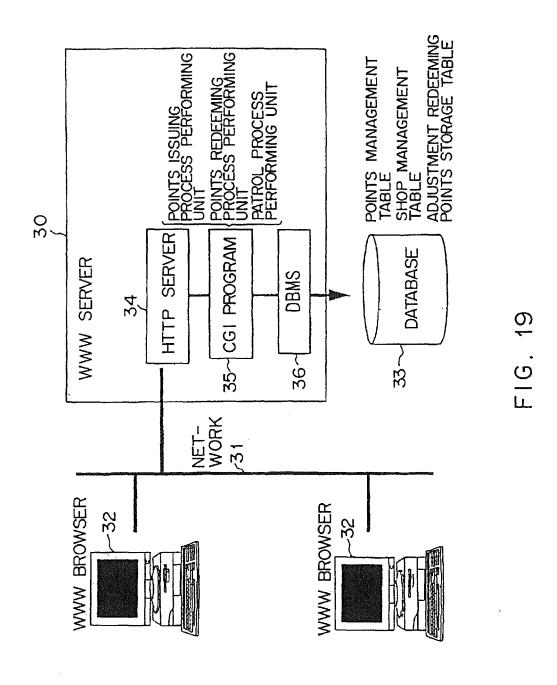
TOTAL AMOUNTS SHOULD
MATCH EACH OTHER

ADJUSTMENT AT END
OF MONTH
PLUS ⟶ RECEIVABLE
MINUS ⟶ PAYABLE

F I G.   1 6

START

SPECIFY CORRESPONDING ENTRY
IN POINTS MANAGEMENT TABLE S 4 5

SET POINTS EFFECTIVE FLAG OF
CORRESPONDING ENTRY TO 1 S 4 6

OBTAIN TOTAL VALUE OF EFFECTIVE
POINTS OF CORRESPONDING CUSTOMER S 4 7

PREDETERMINED NUMBER
REACHED

PREDETERMINED NUMBER
NOT REACHED

S 4 8 NOTIFICATION PROCESS

END

F I G. 1 7

F I G. 1 8

FIG. 19

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<table>
<tr><td>1</td><td>2</td></tr>
</table>

POINT-SERVICE SYSTEM IN ONLINE SHOPPING MALL

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a point-service system for realizing a point-service as a sales promotion service for transaction in an online shopping mall established in a network.

2. Description of the Related Art

One of the most popular customer lock-in systems and sales promotion systems in shopping malls is a stamp service system. A stamp service is provided by issuing a coupon corresponding to a sales amount and presenting a customer with an awarding gift, etc. when the number of coupons reaches a predetermined value.

Another popular system is to issue a magnetic card to a customer without a paper coupon, and update the service points of the customer recorded on the magnetic card each time the customer purchases goods or is presented with a discount or an awarding gift.

In this system, the magnetic card not only records the number of service points but also functions as an ID card (a unique number assigned to a customer). Regardless of using a coupon or a card, the system is operated with the conditions for issuing a coupon or any other points issue condition (hereinafter referred to as a points issue or points award ratio corresponding to the sales amount), and the conditions for redeeming points (hereinafter referred to as a points redeeming ratio) defined as common to all shops in a shopping mall. The redemption of the points means to redeem the points for discount, refund or an awarding gift. The above described systems are adopted by a number of shopping malls such as local shopping malls near stations, the Ginza Shopping Mall, etc.

Recently, customers buy goods not only in shops but also through network services using telephones, personal computers, etc. Furthermore, goods can be displayed through a network, for example, on a customer terminal connected to, for example, the Internet, so that a customer can do shopping through the terminal. When goods in a plurality of shops are displayed on the screen, the shopping mall formed of such shops is referred to as an online shopping mall. In such online shopping malls, no points services have been provided for a purchase in a shop.

In the stamp service in which the above described coupon, etc. is used, the customer has a lot of trouble in applying coupons to a brochure, storing a number of stamps, etc. The shops also have the problem that they have to prepare a number of coupons and pay for the coupons, and have a lot of trouble in following the necessary procedure for issuing the coupons and in counting the number of coupons corresponding to the sales amount for each customer, each time he or she buys goods.

To solve those problems, a point-service system has been developed using a point-of-sale terminal. In this system, service points are accumulated by a host system through the POS terminal each time a customer pays for goods. For example, the number of service points recorded on the magnetic card shown by the customer is updated.

However, in the point-service system using such a magnetic card, the customer has the problem that he or she has to necessarily show the magnetic card when he or she buy goods. Furthermore, the counting adjustment between a points issuing shop and a points redeeming shop is per-

formed in a nighttime batch process through the host center, even if the accumulation result of the service points is recorded on the magnetic card. Therefore, the points record is not practically updated before the day after the shopping. Accordingly, it is inconvenient when exchanging the points for an awarding gift, and it takes a long time to adjust the records between a points issuing or award shop and a points redeeming shop.

SUMMARY OF THE INVENTION

The present invention aims at realizing a point-service system in an online shopping mall established through a network to solve the above described problems by, for example, eliminating the necessity for a customer to carry his or her own magnetic card, improving the quality of the service for customers by shortening the time required from the issuance of points to the redemption of the points. Furthermore, the present invention aims at activating sales in the online shopping mall, improving the quality of the services for customers, and realizing an attractive online shopping mall crowded with customers by, for example, altering the points issue ratio or the points redeeming ratio at each shop or in a specific season.

The point-service system in an online shopping mall according to the present invention includes, as basic components to realize the above listed aims, a points issuing or award unit, a points management device, and a points redeeming unit.

The points issuing unit issues points based on the purchase amount of a customer at an online shopping mall. The points issuing unit issues points according to input information such as the name of the shop and the purchase amount, based on, for example, the points issue ratio set for each shop. The points issue ratio indicates, for example, how many points are issued in return for a purchase of 100 yen. The points issue ratio can be set to a value larger than a normal value, in a special campaign period such as an end-of-year sales period.

The points management device stores, for each points issuing shop, the number of points accumulated by each customer in the format of, for example, a points management table.

The points redeeming unit performs a points redeeming process, that is, reduces the purchase amount for a customer based on the number of accumulated points. In this process, the purchase amount of the customer is reduced depending on the points redeeming ratio determined for each shopping mall or shop. Like the points issue ratio, the points redeeming ratio for a specific service period can be set to a value higher than a normal period.

When a customer decides to buy goods through a home page of an online shopping mall according to the present invention, the number of effective accumulated points of the customer issued by a number of shops to the customer is displayed on the customers terminal by referring to the data of each shop forming part of the online shopping mall. If the customer selects a shop on the display screen and clicks a shopping button, then an order input screen is displayed and the customer inputs order data on the order input screen. Then, the customer clicks the order button, and the point-service system linked to the Web server of the online shopping mall is activated to issue points or redeems points at the instruction of the customer when he or she inputs an order.

Thus, the above described aims can be attained according to the present invention by realizing the point-service system in an online shopping mall established through a network.

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3

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram showing the principle of the present invention;

FIG. 2 shows an example of the configuration of the network for realizing the point-service system according to the present invention;

FIG. 3 is a block diagram showing the configuration of the system of the online shopping mall realized through the Internet;

FIG. 4 is a block diagram showing the configuration of the point-service system realized in an online shopping mall;

FIG. 5 shows a process flow when a customer accesses an online shopping mall;

FIG. 6 shows an example of a display screen of an online shopping mall transmitted from a mall server to a customer;

FIG. 7 is a flowchart showing the process of generating screen data for an online shopping mall transmitted to a customer;

FIG. 8 shows an example of a points management table;

FIG. 9 shows an example of a shop management table;

FIG. 10 is a flowchart showing a patrol process;

FIG. 11 shows an example of a shopping input screen displayed after a customer has optionally selected a shop;

FIG. 12 shows HTTP data, based on which the display screen shown in FIG. 11 is generated;

FIG. 13 shows an example of an order screen transmitted from a mall server to a customer;

FIG. 14 is a flowchart of a points issuing process;

FIG. 15 is a flowchart of a points redeeming process;

FIG. 16 shows an example of an adjustment redeeming points storage table;

FIG. 17 is a flowchart showing the points calculation process at the time of credit payment;

FIG. 18 shows an example of an input screen for use in amending the contents of a shop management table; and

FIG. 19 shows the configuration of a practical point-service system in an online shopping mall according to the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

FIG. 1 is a block diagram showing the principle of the point-service system in an online shopping mall according to the present invention. FIG. 1 shows the principle of the point-service system in the online shopping mall established through a network, for example, the Internet. The online shopping mall is assumed to be provided by a specific server, for example, a Web server in the Internet system.

In FIG. 1, a points issuing unit 1 issues points based on the purchase amount of a customer. The points issuing unit 1 issues points according to input information such as the name of the shop and the purchase amount, based on, for example, the points issue ratio set for each shop. The points issue ratio indicates, for example, how many points are issued in return for a purchase of 100 yen.

The points management device 2 stores, for each points issuing shop, the number of points accumulated by each customer.

The points redeeming unit 3 performs a points redeeming process, that is, reduces the purchase amount of a customer based on the number of accumulated points. In this process, the purchase amount of the customer is reduced depending on the points redeeming ratio determined for each shopping mall or shop.

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Described below is a practical operation according to the present invention.

For example, a customer opens a home page of the online shopping mall using a URL. Then, a shopping mall entered in the data base linked to the home page of the online shopping mall is displayed. For example, a hyper link or an image map of a jewelry shop, an apparel shop, a grocery shop, etc. is displayed. If a customer clicks the mouse on the hyper link to his or her favorite shop, then the names of the goods and their images and prices of the shop are displayed on the screen. A purchasing operation is performed by clicking with the mouse for the selected goods. The goods are directly sent from the shop to the customer, and the customer makes a payment.

When each shop joins the online shopping mall, it is displayed on the home page of the online shopping mall that each shop can be provided with a point-service.

If a customer wants to buy apparel, the customer is more likely to buy the goods in an online shopping mall which allows a point-service. Each shop has also the advantage of providing a point-service. Furthermore, entering in the online shopping mall is a useful advertisement. The service provider who generates an online shopping mall on a home page can get from a subscriber a member charge or commission based on the purchase amounts.

When a customer wants to buy goods in an online shopping mall, the customer has to perform an entry operation. In the database of the online shopping mall, the customer is assigned a customer area, a customer ID, and a customer password. The customer ID is fixed for each customer, but the customer password can be optionally reset by the customer.

The customer can access the online shopping mall to check his or her number of points and purchase history. If the customer is assigned an electronic mail (e-mail) address, then the current number of points can be periodically transmitted from the online shopping mall to the customer.

Described below by referring to the attached drawings are the embodiments of the present invention.

FIG. 2 shows an example of the configuration of the network for realizing a point-service system in an online shopping mall 10 according to the present invention. In FIG. 2, a plurality of servers 11, 12, and 13 form a network, for example, the Internet. For example, the server 11, that is, a Web server, provides the online shopping mall 10. A server file 14 for storing a points management table and a shop management table, to be described later, for storing the points data and shop data in the point-service system, is connected to the server 11. For example, the server 12 is connected to a conventional online shopping mall through a network. Customers d, e, and f use the server 12, and can access the conventional online shopping mall or the online shopping mall 10 having the point-service system according to the present invention. The online shopping mall 10 is assumed to comprise the shops A, B, and C. In this example, the point-service system is described by referring to an example in which the shops do not have their own servers. However, the shops can also have their own servers, and can simultaneously enter another online shopping mall.

FIG. 3 is a block diagram showing the configuration of the system of an online shopping mall for realizing the present invention through a network. In FIG. 3, the online shopping mall comprises a Web server program 15 in the Internet; a database 16, corresponding to the server file 14 shown in FIG. 2, for storing data of a points management table, a shop management table, etc., to be described later; and a common

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gateway interface (CGI) program **17** as an interface program between the Web server program **15** and the database **16**.

The Web server program **15** processes data based on a hyper text transfer protocol (HTTP), and transmits to a customer a hyper text markup language (HTML) file specified by the customer through a uniform resource locator (URL). The HTML file stores the URL of the related HTML file in addition to the information to be provided for the customer. When the customer specifies the URL through a customer terminal, the URL is transmitted to the Web server program **15** through the network, and the HTML file specified by the URL is transmitted to the customer.

If the URL specified by the customer is a specific type of URL, that is, the customer specifies a file in the cgi-bin directory, then the content of the file, that is, a program, is executed. The program executed in this example is the CGI program **17**. The CGI program **17** issues, for example, a structured query language (SQL) as a database query language, and the database **16** is managed by a database management system (DBMS), not shown in the attached drawings.

FIG. **4** is a block diagram showing the configuration of the point-service system realized in the online shopping mall. In FIG. **4**, a point-service system **20** comprises a server file **21** for storing a points management table for storing the number of points of a customer of an online shopping mall for each customer, each time points are issued to the customer, a shop management table for storing a points issue ratio and a points redeeming ratio for each shop forming part of the online shopping mall, etc.; a points issuing process performing unit **22** for issuing points each time a customer buys goods; a points redeeming process performing unit **23** for redeeming points for a customer at the request from the customer, and reducing the purchase amount for the customer; and a patrol process performing unit **24** for monitoring, for example, the term of the points assigned to the customer and notifying a customer by mail when the term of his or her points is close to expiration.

The server file **21** is set in the database **16** shown in FIG. **3**. The points issuing process performing unit **22** and the points redeeming process performing unit **23** are entered in the CGI program **17** shown in FIG. **3**. The patrol process performing unit **24** is entered in the CGI program **17** shown in FIG. **3** or as, for example, an independent, periodically executed program not shown in the attached drawings.

The point-service system **20** is activated by a request from the Web server program **15** shown in FIG. **3** when a customer orders goods when he or she is shopping in the online shopping mall. As described later, the point-service system **20** is activated by a program, not shown in the attached drawings, when the charge for goods is paid for by credit.

FIG. **5** shows the flow of the processes when a customer accesses an online shopping mall (hereinafter also referred to as a mall). In FIG. **5**, when the customer buys goods in an online shopping mall,

1. the customer (customer side computer) requests a server for managing a mall, that is, a mall server (FIG. **2**), to connect the customer to the online shopping mall,
2. the Web server program **15** (FIG. **3**) in the mall server transmits as HTTP data (HTML file) the screen data of the online shopping mall to show the data of each shop in the online shopping mall, the number of points issued by each shop to the customer, etc. in response to the request, whereas the customer displays the data on the screen based on the received HTTP data,

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3. the customer optionally selects a shop on the screen,
4. the customer transmits the URL corresponding to the order screen to the mall server,
5. the mall server transmits the order screen to the customer based on the URL, and
6. when the customer inputs the order data through the terminal, the order data is transmitted to the mall server with the URL of the program for processing the order data. The mall server activates the CGI program of the URL using the received order data as a parameter. To accept the order, the activated program performs a points process, that is, a points issuing process, or a points redeeming process according to the contents of the points management table and the shop management table, described later, and notifies the corresponding shop of the process result and the sales amount.

The effective points process shown at the bottom in FIG. **5** is a process of setting the effective flag of the points corresponding to the purchase amount to 1 when the goods have been purchased with the payment to be paid later, as described below. When the charge is actually adjusted and a payment notification is received, the effective points process in which the effective flag for a point is set to 1 is performed. This effective points process is not performed as a single process flow such as an order process, but is an asynchronous process to be performed each time a payment notification is received.

FIG. **6** shows an example of the display screen (home page) of the online shopping mall transmitted from the mall server to the customer in step **2** shown in FIG. **5**. FIG. **6** shows the data of the goods, prices, advertisement of each shop forming part of the online shopping mall; the number of points issued to and currently accumulated by a customer; the nearest expiring term of the points held by the customer, that is, the oldest effective term of the points among all the points accumulated by the customer; and the points issue ratio and the points redeeming ratio for each shop.

For example, 400 is the number of the accumulated points for shop B. 090401 indicates that the oldest effective term of the accumulated points is Apr. 1, 1997. As shown in FIG. **9**, the points issue ratio is 100, and the points redeeming ratio is 1. The SP for shop F indicates that shop F is in a special service period. The *** for shop E indicates that shop E does not provide a point-service to customers. When all shop data cannot be displayed on the screen at once, the data is scrolled to display the remaining data of the shops. If there is a great number of shops, it is convenient for a customer to display the shop data in order from the shop for which the customer has accumulated the largest number of points.

When the customer optionally selects a shop as shown in FIG. **6** and clicks the shopping button, control is passed to step **4** shown in FIG. **5**, and the order screen is transmitted from the mall server in step **5**.

FIG. **7** is a flowchart showing the process of generating online shopping mall screen data which is generated by a mall server, in response to a connection request issued in step **1** from the customer shown in FIG. **5** to the online shopping mall. The generated data is to be transmitted to the customer. This process flow corresponds to a part of the CGI program **17** shown in FIG. **3**. When the process starts as shown in FIG. **7**, the mall server transmits to the customer the HTTP data to prompt the customer to input the customer ID in step S1. When the customer inputs a customer ID through a customer terminal, the ID is transmitted to the server in step S2 together with the URL of the program which generates the screen. The URL of the program which

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generates the screen is contained in the HTTP data transmitted in step S1 from the server to the customer.

Then, the processes in steps S3 through S7 are repeated for each shop forming part of the online shopping mall. First, in step S3, the shop information about the goods, prices, advertisement of the shop, etc. is set up. In step S4, it is judged whether or not the shop provides a point-service. If not, it is informed in step S5 that no point-services are provided by the shop, and the process terminates for that shop. Then, the processes in and after step S3 are repeated for other shops.

If it is determined in step S4 that the shop provides a point-service, then the contents of the points management table shown in FIG. 8 are referred to in step S6, and the number of points accumulated by the customer and the oldest effective term of the points for the shop are set up.

FIG. 8 shows an example of the points management table. As shown in FIG. 8, the table stores the number of points for each customer of the online shopping mall, for each shop which provides a point-service. That is, each time points are issued, the issue date (purchase date), effective term, number of points, issuing shop (where the customer buys the goods), and the value of the effective flag are stored. If the effective flag is set to 0, it indicates that the goods have been purchased and the charge has not been paid yet, that is, the charge is to be paid later, for example, on credit, transfer from the account of the customer, transfer to the account of the shop, etc., as described later.

If the charge is to be paid later, the effective flag turns to 1 when the payment is actually made, as described later. In addition to the method of controlling the effectiveness of the points using the effective flag, a method of computing the points again after the payment is actually made can also be adopted. These methods are adopted to avoid the problem that points are issued against a purchase for which no payment is made (ineffective purchase). Issuing points immediately after receiving a purchase order, at the risk of the shop, can also be adopted, as a practical method.

The number of points in the INFORMATION column shown in FIG. 8 indicates the number of points informed to the customer by mail in the patrol process, to be described later, when the total number of points reaches this value. For example, the number of points 9000 in the INFORMATION column is transmitted to the customer so that the customer can be informed that the number of his or her points is close to 10,000, which allows an increment of the points issue ratio.

According to the management term shown in FIG. 8, the points of a customer remain stored in the system without being removed from the points management table for the management term, even after the effective term of the points has passed. In the example shown in FIG. 8, one year is set from the purchase date, that is, the points issue date, to the end of the effective term, and an additional five years are set up to the end of the management term.

After the number of points accumulated by the customer is set in step S6 as shown in FIG. 7, the information about a special service period is set for each shop in step S7, the process for that shop terminates, and the processes in and after step S3 are repeated for another shop. When the processes in steps S3 through S7 are performed for all shops forming the online shopping mall, the screen data of the online shopping mall is transmitted to the customer in step S8, and the process terminates. When there is a large number of shops, the customer has to wait a long time for data transmission. Therefore, the data can be divided for transmission.

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FIG. 9 shows an example of a shop management table referred to when information about a special service period is set for each shop in step S7 shown in FIG. 7. In FIG. 9, the table stores the points issue ratio, the points redeeming ratio, the starting and ending date of a special service period, and the premium points issue ratio for each shop forming part of the online shopping mall. For example, the points issue ratio 100 for shop A indicates that 1 point is issued for 100 yen. The points redeeming ratio 1 indicates that 1 yen is reduced for each point. The premium points issue ratio 10,000 2 indicates that the points issue ratio doubles when the number of accumulated points reaches 10,000. That is, when the number of accumulated points reaches 10,000, 2 points are issued for each 100 yen. The points issue ratio 0 and points redeeming ratio 0 for shop E indicates that the point-service is not provided by shop E. It is also possible to change the points issue ratio and the points redeeming ratio for a specific period only. Shop F shown in FIG. 9 sets the first half of the year 1996 (from January 1 to June 30) as a special service period in which one point is issued for each 50 yen. In shop F, the points redeeming ratio for the special service period is set to a value double the points redeeming ratio of other shops.

FIG. 10 is a flowchart showing the patrol process in which the effective term of the points stored in the points management table is confirmed. This process is periodically performed, for example, at the end of each month. When the process starts, the contents of the points management table shown in FIG. 8 are searched and it is determined whether or not there are any points which are close to expiration in step S11. If yes, control is transferred to the process in step S13 after the expiration information mail process is performed for the customer in step S12. If it is determined that there are no points close to expiration, then control is passed to the process in step S13 without performing the processes in step S12.

A mail process can be performed by either automatically sending the mail or after preparing an electronic mail statement or printing a notification on a printer and normally mailing the notification. The points management table stores a mail ID required in the automatic sending process, or a postal code and address required in the normal mailing process. In any case, a mailing process is exclusively performed in step S12. It is not confirmed in step S12 whether or not a notification is actually transmitted to the customer, or whether or not the customer has actually received a notification.

In step S13, the number of points in the INFORMATION column of the points management table is compared with the sum of the number of points of each customer. Then, it is determined whether or not there is any customer to be informed of the sum. If a customer is to be periodically informed of the sum of points, it is determined whether or not there is any such customer to be informed of the sum. If there is any customer to be informed of the sum, then control is passed to the process in step S15, after a predetermined points number reaching information mail process or the periodic points number information mail process is executed in step S14 for the customer. If there is no customer to be informed of the sum, then control is passed to the process in step S15 without performing any process in step S14.

It is determined in step S15 whether or not there are points having passed their expiration date. If yes, the points are defined as invalid, thereby terminating the patrol process. When the points are nullified, it is desired that the points in the ineffective state are stored for certain period (for example, 5 years), in the points management table or an

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archive file, etc., because they may be required in case of any trouble, query, etc.

FIG. 11 shows a shopping input screen displayed after a customer optionally selects a shop on the screen shown in FIG. 6. FIG. 12 shows the HTTP data for use in displaying an input screen. The HTTP data of the input screen contains the customer ID input by the customer on the initial screen of an online shopping mall and the identification information about the shops. That is, '<FORM METHOD=POST ACTION=http://www.mall.aaa.co.jp/cgi-bin/program-a>' shown in FIG. 12 indicates that the customer requests the server www.mall.aaa.co.jp to execute program-a after the data is input on the input screen. Furthermore, <INPUT TYPE="hidden"NAME="personal-ID" CHECKED VALUE="aaa0001"> defines an object to be transmitted as a parameter when program-a is executed at the request. That is, it is defined that the data personal-ID=aaa0001 (indicating that the customer ID is aaa0001) is to be transmitted. The 'INPUT TYPE="hidden" indicates that the data is not displayed. Similarly, <INPUT TYPE="hidden" NAME="store-ID" CHECKED VALUE="SPACE DEVELOPMENT"> defines an object to be transmitted as a parameter when program-a is executed at the request. That is, it is defined that the data store-ID=SPACE DEVELOPMENT (indicating that the name of the shop is space development) is to be transmitted. The 'INPUT TYPE="hidden" indicates that the data is not displayed.

<INPUT TYPE="checkbox" NAME="prdl"> defines that the data prdl=yes (indicating that the goods prdl is purchased) is to be transmitted to the mall server when a check box is displayed on the screen and clicked. The subsequent 'SPACE SUIT' indicates that the character string 'SPACE SUIT' is displayed on the screen. The next <INPUT TYPE="text" NAME=prdl-num SIZE="2"> indicates that a 2-byte area is displayed as an input area of the number of space suits to be purchased, and that the input data (prdl-num=number of suits) is transmitted.
 indicates a new line. This is also true with the 'SPACE FOOD' and the 'SPACE SHIP'. <INPUT TYPE="submit" VALUE="shopping"> displays a 'shopping' button. When the button is clicked, the name of the program for performing the above described processes and its parameters are transmitted to the mall server. <INPUT TYPE="reset" VALUE="stop"> displays a 'stop' button. When the button is clicked, the values of the input parameters are cleared.

FIG. 13 shows an example of an order screen transmitted from a mall server in step 5 shown in FIG. 5 by clicking the above described shopping button. The HTTP data on the order screen contains the data (the name of the goods and the quantity) input when the customer selects the goods as described above, the data (the customer ID and the name of the shop) carried over from the previous screen, and the URL of the CGI program executed corresponding to the screen.

In FIG. 13, the customer inputs a destination of the goods, etc., selects the type of payment from the three methods, that is, the bank transfer, the network money, or the payment on credit, and specifies among the accumulation of all points, or the redemption using all accumulated points, or the redemption using a part of the accumulated points, and specifies the number of points for redemption when a partial redemption of the accumulated points are specified. If the points obtained in this shopping order are donated to, for example, a charity organization, or are added as another customer's points, for example, a member of the customer's family, then the program having the URL specified in the HTTP data on the screen, that is, the point-service system 20 (shown in

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FIG. 4) is activated by specifying the identifier (id) of the receiver of the points and clicking the order button.

FIG. 14 is a flowchart showing the points issuing process activated by a customer's clicking the order button on the screen shown in FIG. 13. This process flow corresponds to the points issuing process performing unit 22 shown in FIG. 4, that is, a part of the CGI program 17 shown in FIG. 3. When the process starts as shown in FIG. 14, it is first determined in step S20 whether or not the shop in which the customer placed an order provides a point-service. If the shop does not provide the service, the purchase amount of the customer is recorded on the bill, thereby terminating the points issuing process. After the points issuing process, a normal order process and a charge billing process are performed as a part of the CGI program 17 shown in FIG. 3.

When it is determined in step S20 that the shop provides a point-service, it is determined in step S21 whether or not the customer requests a redemption using the accumulated points, and whether or not the number of the accumulated points has reached the minimum value for a redemption. Unless both of these conditions are satisfied, no redemption is made. When no redemption is made, after the purchase amount is defined as the payment amount in step S22, the number of points is computed in step S23. That is, the number of the points corresponding to the purchase amount is computed at a points issue ratio of the corresponding shop. The minimum value of the points for a redemption can be either commonly defined within an online shopping mall or individually set by each shop.

It is determined by the specification on the above described order screen shown in FIG. 13 whether or not the points are to be donated or added to another customer's points. If the points are to be counted as the customer's own points, then they are stored in the points management table as the customer's own points in step S24 with the contents from the purchase date to the effective flag appropriately set. If the points are to be donated or added to another customer's points, they are similarly stored in step S25 as the points of the donee or another customer. Then, the payment condition is determined in step S26. For example, if the points are to be added to another customer's points, it is convenient to optionally select specifying the destination of the points to be added each time the customer buys goods, and preliminarily entering the destination to automatically add his or her own points as the points for the destination.

When a payment is made in cash, for example, electronic money, electronic check, electronic draft, etc., the points issuing process terminates. When a payment is made afterwards on credit, automatic transfer from the customer's account, transfer to the account of the payee, etc., the effective flag for the points is set to 0 in step S27, the points are set to be ineffective until the payment is made, thereby terminating the process.

If a customer requests a redemption using the points accumulated by the customer, and it is determined that the number of the points has reached the minimum value for a redemption in step S21, then the redeeming points computing process is performed in step S30. This process is explained in detail by referring to FIG. 15.

After the number of points is computed for a redemption in step S30, the number of points for each shop after the number of redeeming points is subtracted is stored in the points management table in step S31. In step S32, the redemption amount is computed based on the number of the points to be processed for a redemption. In step S33, the redemption amount is subtracted from the purchase amount,

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and the result is defined as the payment amount. In step S34, it is determined whether or not points are to be issued for the payment amount obtained after the subtraction. For example, if the total amount after the subtraction is very small, that is, it does not reach 100 yen for one point, then no point is issued, thereby terminating the process. If the total amount after the subtraction indicates the amount for which points should be issued, then the points are issued in the processes in and after step S23.

FIG. 15 is a flowchart of the process in step S30 shown in FIG. 14, that is, the redeeming points computing process. The process flow corresponds to the redeeming process performing unit 23 shown in FIG. 4, that is, a program forming part of the CGI program 17. When the process starts as shown in FIG. 15, the points accumulated for the current shop, in which the customer makes a new purchase, are counted for points redemption from the oldest points in step S40, and the redeeming points are computed at the points redeeming ratio of the current shop. Then, it is determined whether or not the number of the redeeming points has reached the value specified by the customer. If yes, the process terminates because it is not necessary to use the points accumulated for other shops.

If the number of the redeeming points has not reached the value specified by the customer, then the deficit is compensated by the points accumulated for other shops from the oldest points in step S41. The redeeming points are computed at the points redeeming ratio common to all shops in the online shopping mall. Then, in step S42, the redeeming points adjusting process is performed between other shops, and the process terminates. When the points accumulated for other shops are used in redeeming points, the points redeeming ratio specifically set for the current shop, not the common ratio in the online shopping mall, can also be applied.

That is, according to the present embodiment, the points accumulated for the shop, in which the customer makes new purchase, are processed in redeeming points. The points are counted from the oldest one by priority. For example, as shown in FIG. 8, if customer A requests to redeem 250 points when he or she buys goods at shop B, then 200 points obtained when the customer bought goods on Apr. 1, 1996, are used for redeeming points, and out of 100 points obtained when the customer bought goods on Apr. 8, 1996, 50 points are used for redeeming points. The points obtained when the customer bought goods on Apr. 2, 1996 at shop D, not the present shop B, are not used in this case although the effective term of these points is older than the term of the points for shop B.

Customers can be allowed special services if they buy goods at the same shop by setting the points redeeming ratio higher than the common points redeeming ratio of the online shopping mall.

In performing the redeeming points adjusting process in step S42 shown in FIG. 15 among a plurality of shops, the adjustment is performed each time points are used for a redemption, performed collectively on all shops covering a predetermined period after storing redeeming points data for an appropriate period such as one week data, one month, etc., or performed using the amount corresponding to the redeeming points as the amount that is committed by a points issuing shop to the union of a shopping mall as a deposit.

FIG. 16 is an example of an adjustment redeeming points storage table for adjustment used in a redeeming points adjusting process periodically performed by all shops forming an online shopping mall. This table contains the cumu-

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lative values X and Y indicating the amount of redeeming points recorded for each of all shops A, B, C, D, E, F, . . . forming an online shopping mall. X is the amount of the redeeming points when a customer buys goods in one shop and uses points issued by any other shop for a redemption, and Y indicates the amount of redeeming points when a customer buys goods at another shop and uses redeeming points accumulated for one shop. For example, if adjustment is performed at the end of each month, the difference between the values X and Y is computed at the end of each month. When the value is positive, the account is receivable. When the value is negative, the account is payable. For example, if a customer buys goods at shop B, and uses 200 points issued by shop B and 500 points issued by shop C for redemption, then the column X for shop B in the table contains 500 redeeming points, and the column Y for shop C contains 500 redeeming points. The column X-Y on this table indicates results of the process of the adjustment at the end of each month, that is, the state immediately after the difference between X and Y is computed.

FIG. 17 shows the points effectuation process at the adjustment of a charge when it is paid on credit, automatic transfer from the customer's account, transfer to the account of the payee, etc. This flow corresponds to the control program independent of the CGI program 17 shown in FIG. 3. If a customer specifies at the purchase of goods that payment is to be made afterwards, for example, on credit as described above by referring to step S27 shown in FIG. 14, then the effective flag for the issued points corresponding to the purchased goods is set to 0, and the effective flag is changed into 1 when the payment is made. In this case, a points issue ratio is obtained in step S23 as a basic concept. For example, when a customer buys goods during a year-end special service period, the special point-service is applied even if the payment is made after the period.

If a shop or a financial company, etc. transmits a payment notification to a mall server, as shown in FIG. 17, a corresponding entry in the points management table is specified in step S45, the effective points flag for the entry is set to 1 in step S46, and a total number of effective points for the customer is obtained in step S47. If the total number of the points has reached the value of the INFORMATION column of FIG. 8, then a notification mail process is performed in step S48 to inform the customer of this. If the total number of the points has not reached a predetermined value, then no process is performed and the entire process terminates. Such a points effectuation process for the payment to be made afterwards can be efficiently performed by being performed collectively. If a shop or a financial company transmit a plurality of payment notifications to a mall server, then the processes in steps S45 through S48 can be repeated.

FIG. 18 shows an example of an input screen displayed when the contents of the shop management table shown in FIG. 9 are altered from the server of each shop. On such screens, the server of each shop can be newly set, and the contents of the shop management table can be altered or deleted. Since a considerable loss would be caused by a malicious alteration of the data in the shop management table, security should be provided for the authorization for access to the shop management table.

FIG. 19 shows an example practically showing the point-service system in an online shopping mall according to the present invention as the configuration of the system in a computer environment. FIG. 19 shows the point-service system as a summary of FIGS. 2 through 4, illustrating the configuration of a WWW server 30, a network 31, a plurality of WWW browsers 32, and a database 33. The WWW server

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30 comprises an HTTP server 34 for performing a process based on the above described HTTP protocol, a CGI program 35 for performing the processes of a points issuing process performing unit, a points redeeming process performing unit, and a patrol process performing unit, and a database management system (DBMS) 36. The database 33 stores a points management table, a shop management table, an adjustment redeeming points storage table, etc.

Clicking the mouse of a remote shop which is displayed in the home page of an online shopping mall, but is not entered in the online shopping mall, can access the home page of the shop. In this case, the purchase information is simultaneously input to the database linked to the home page of the online shopping mall and the database linked to the home page of the shop. If the shop enters the online shopping mall, the purchase information stored in the database linked to the home page of the shop is also transmitted to the database linked to the home page of the online shopping mall using the existing network transfer command. In this case, the customer can access the home page of the shop from the home page of the online shopping mall, enter a request to receive a point-service from the online shopping mall each time the customer buys goods in the shop, and then use the point-service system even if the customer buys goods directly through the home page of the shop. Furthermore, each shop can easily provide a customer with the latest goods in the shop by constantly updating the database linked to the home page.

As described above, the points issue ratio and the points redeeming ratio can be set as common to all shops in a shopping mall. Such points issue ratio and points redeeming ratio may be individually set by each shop in a shopping mall.

The embodiment of the present invention is described above. However, it is obvious that the present invention is not limited to this application, but can be realized in various embodiments within the scope disclosed by the specification and claims of the present invention. Especially, the goods can be the reservations of travel, hotels, theaters, etc.

As described above, the merits to the customers of the point-service system of an online shopping mall according to the present invention are that it is very convenient for a customer to buy goods through a network without a transportation fee to the shops, various services such as immediate redemption by points when the customer buys goods are provided, no cards are required when buying goods, the current number of the points can be easily computed, services can be improved for the customers through competition among the shops in the online shopping mall, etc.

The merits to the shops in the online shopping mall is that the sales amount can be increased by inviting a number of customers to the online shopping mall, it is not necessary for the shop in the online shopping mall to preliminarily buy points, the shops do not have to issue any cards, each shop can provide a customer with their own and attractive services, thereby serving to further develop the online shopping mall.

What is claimed is:

1. A point-service system for use in an online shopping mall established in a network, comprising:

points issuing means for issuing points depending on a purchase amount of a customer and a points issue ratio defined as a number of issued points corresponding to the purchase amount of the customer;

points management means for storing points issued by said points issuing means and accumulated by the customer;

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points redeeming means for redeeming points according to a points redeeming ratio defined as the redemption based on the number of points within a number of accumulated points of the customer stored by said points management means, and for decreasing the number of the accumulated points of the customer.

2. The point-service system according to claim 1, wherein said points issuing means sets the points issue ratio for each shop forming part of the online shopping mall.

3. The point-service system according to claim 1, wherein said points issuing means sets the points issue ratio to a value effective only in a specific period and different from a value effective in a period other than the specific period.

4. The point-service system according to claim 1, wherein said points issuing means sets the points issue ratio to a value depending on a number of points accumulated by the customer and not used for a redemption.

5. The point-service system according to claim 1, wherein when the customer buys goods with a payment made later, said points management means stores the points issued for the goods by said points issuing means as being effective for redeeming points after the payment is made.

6. The point-service system according to claim 1, wherein said points management means stores the points issued by said points issuing means as points accumulated by a customer other than the customer who obtained the points by buying the goods.

7. The point-service system according to claim 6, wherein said points management means follows a specification of the other customer from the customer who obtained the points issued by said points issuing means by buying the goods.

8. The point-service system according to claim 1, wherein said points redeeming means redeems points for a discount from a purchase amount according to the points redeeming ratio.

9. The point-service system according to claim 1, wherein said points redeeming means sets the points redeeming ratio for each shop forming part of the online shopping mall.

10. The point-service system according to claim 1, wherein said points redeeming means sets the points redeeming ratio to a value effective only in a specific period and different from a value effective in a period other than the specific period.

11. The point-service system according to claim 1, wherein said points management means stores an effective term assigned to points issued by said points issuing means; and said points redeeming means allows a redemption using points in effective terms only.

12. The point-service system according to claim 11, wherein said points redeeming means uses points of the customer from the points assigned an oldest effective term in redemption.

13. The point-service system according to claim 11, wherein said points management means continues storing points out of the effective terms for a predetermined period after the effective terms have passed.

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14. The point-service system according to claim 1, further comprising:

points accumulation amount notification means for periodically notifying each customer of a number of accumulated points stored by said points management means.

15. The point-service system according to claim 1, further comprising:

points accumulation amount notification means for non-periodically notifying each customer of a number of accumulated points stored by said points management means.

16. The point-service system according to claim 15, wherein

said points accumulation amount notification means notifies a customer of a number of accumulated points when the number of accumulated points has reached a predetermined value.

17. The point-service system according to claim 1, wherein

said points redeeming means allows a redemption using not only a number of points issued by a specific shop, in which a customer makes a new purchase, but also a number of points issued by other shops.

18. The point-service system according to claim 17, further comprising:

inter-shop redeeming points adjusting means for adjusting redeeming points among a plurality of shops forming part of the online shopping mall based on a number of redeeming points, a name of the specific shop, and names of other shops, for points issued by the other shops in the redeeming points used by said points redeeming means when a customer buys goods at the specific shop.

19. The point-service system according to claim 18, further comprising:

an adjustment redeeming points storage table for storing, for each shop forming part of the online shopping mall, a number of points X issued by the specific shop and used for a redemption at another shop, and a number of points Y used for a redemption at a specific shop but issued by other shops, wherein

said inter-shop redeeming points adjusting means updates contents of said adjustment redeeming points storage table, when points are used for a redemption, based on a number of redeeming points, a name of a shop which issued the redeeming points, and a name of a shop at which the redemption is allowed, and adjusts the redeeming points among the plurality of shops based on a difference between said number of points X and said number of points Y.

20. The point-service system according to claim 18, wherein

said inter-shop redeeming points adjusting means periodically performs an adjusting process.

21. The point-service system according to claim 1, further comprising:

online shopping mall display control means for controlling display for each customer, when a customer is buying goods in the online shopping mall, in such a way that data of each shop forming part of the online shopping mall is displayed with a number of points unused for a redemption within points issued to each customer by a shop which provides a point-service in the online shopping mall.

22. The point-service system according to claim 21, wherein

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said online shopping mall display control means controls the display of the data of each shop forming part of the online shopping mall in order from a shop having a largest number of points unused for a redemption.

23. The point-service system according to claim 1, further comprising:

online shopping mall display control means for controlling display, when the customer is buying goods in the online shopping mall, of data of each shop forming part of the online shopping mall in a format clearly indicating whether or not each shop provides a point-service.

24. A computer-readable storage medium used to direct a computer to perform, in realizing a point-service in an online shopping mall established through a network, the functions of:

issuing points depending on a purchase amount of a customer;

storing, for each customer in memory, issued points accumulated by each customer; and

reducing payment of a customer as redeeming points using the points accumulated by the customer.

25. A method of receiving a point-service in an online shopping mall established through a network, comprising the steps of:

specifying by a customer a name of a shop at which a customer is buying goods in the online shopping mall and a name of goods requested by the customer;

specifying by the customer a number of redeeming points for a redemption from a price of object goods within a scope of a number of points accumulated by the customer; and

reducing the price of the object goods according to the specification of the customer and a points redeeming ratio defined as a discount from a purchase amount depending on the number of redeeming points.

26. A method of receiving a point-service in an online shopping mall established through a network, comprising the steps of:

specifying by a customer a name of a shop at which a customer is buying goods in the online shopping mall and a name of goods requested by the customer;

specifying by the customer a destination of points issued when the customer buys the specified goods, at a points issue ratio defined as a number of issued points corresponding to a purchase amount; and

in response to the specification, storing in a system for providing a point-service in the online shopping mall points, issued when the customer buys goods, as points accumulated by another customer specified by the destination.

27. A method of providing a point-service in an online shopping mall established through a network, wherein

each shop forming part of the online shopping mall sets each of a points issue ratio defined as a number of issued points corresponding to a purchase amount of a customer and a points redeeming ratio defined as a discount amount from a purchase amount corresponding to a number of redeeming points within a number of points accumulated by the customer to values effective only in a specific period and different from values effective in a period other than the specific period.

28. A method of issuing points in an online shopping mall established through a network, wherein

each shop forming part of the online shopping mall sets a points issue ratio defined as a number of issued points

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corresponding to a purchase amount of a customer to a variable value depending on a number of points issued when the customer buys goods at shops forming the online shopping mall and unused redeeming points to be used for reducing a purchase amount when the customer next buys goods.

29. A computer-readable storage medium used to direct a computer to perform in realizing a point-service in an online shopping mall established through a network, the functions of:

    issuing points depending on a purchase amount of a customer;

    storing, for each customer in memory, issued points accumulated by each customer; and

    reducing payment of a customer as a redemption using the points accumulated by the customer.

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30. A method for managing a point-service system for use in an online shopping mall, comprising:
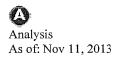
    issuing points corresponding to a purchase amount of a customer and a points issue ratio defined as a number of issued points corresponding to the purchase amount of the customer;

    storing issued points accumulated by the customer;

    redeeming points according to a points redeeming ratio defined as the redemption based on the number of points within a number of the stored accumulated points of the customer and decreasing the number of stored accumulated points of the customer.

* * * * *

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Analysis
As of: Nov 11, 2013

IN RE SAMUEL S. M. SUN, SUSAN B. ALTENBACH and JEFFREY TOWN-SEND

93-1261

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

1993 U.S. App. LEXIS 34020; 31 U.S.P.Q.2D (BNA) 1451

December 23, 1993, Decided

NOTICE: [*1] RULE 47.8. OPINIONS AND ORDERS DESIGNATED AS UNPUBLISHED SHALL NOT BE EMPLOYED AS PRECEDENT BY THIS COURT, AND MAY NOT BE CITED BY COUNSEL, EXCEPT IN SUPPORT OF A CLAIM OF RES JUDI-CATA, COLLATERAL ESTOPPEL, OR LAW OF THE CASE. ANY PERSON MAY REQUEST THAT AN UNPUBLISHED OPINION OR ORDER BE REPRE-PARED AND REISSUED FOR PUBLICATION, CIT-ING REASONS THEREFOR. SUCH REQUEST WILL BE GRANTED OR DENIED BY THE PANEL THAT RENDERED THE DECISION.

SUBSEQUENT HISTORY: Reported in Table Case Format at: *22 F.3d 1102, 1993 U.S. App. LEXIS 38094.*

PRIOR HISTORY: Appeal from the Patent And Trademark Office Board of Patent Appeals and Interferences. Appeal No. 92-3590.

DISPOSITION: Affirmed.

JUDGES: Before MAYER and MICHEL, Circuit Judges, and SCHWARZER, Senior District Judge. *

> * Honorable William W. Schwarzer, Senior District Judge, United States District Court for the Northern District of California, sitting by de-signation.

OPINION BY: MICHEL

OPINION

DECISION

Sun et al. (appellants) appeal the December 28, 1992 decision of the Patent and Trademark Office Board of Patent Appeals and Interferences (Board), Appeal No. 92-3590, affirming the examiner's rejection of claims 1-3 and 20 [1] of application Serial No. 07/510,708 as antic-ipated under *35 U.S.C. § 102(b) (1988)* and as obvious under *§ 103* over an abstract by Sun [*2] and others (the Sun publication), and, separately, over an abstract by Altenbach and others (the Altenbach publication), and of claims 20-35 as obvious over various references. As ar-gued, these claims stand or fall together. Because appel-lants' evidence was insufficient to rebut the prima facie case that the two abstracts were enabling and therefore prior art, because appellants conceded that all limitations in the claims were inherent in the two abstracts, and be-cause the anticipation findings were not otherwise tainted by legal error, we *affirm.*

> 1 The examiner also rejected claims 4-19 on other grounds. These rejections, however, were reversed by the Board and are not at issue in this appeal.

DISCUSSION

I. Background

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The claimed invention relates to DNA which encodes certain subunits of a sulfur-rich protein found in Brazil nuts, and the product resulting from the transfer of that DNA first to certain plant cells and then to higher plants to increase their nutritional value. What is claimed is the DNA itself, [*3] although it is defined by the subunits it encodes, not its structure.

The examiner rejected the claims over abstracts, published over one year before the filing date of the application, by Sun et al. and Altenbach et al., two of the three inventors. Although the examiner admitted that the abstracts lacked the "teaching of specific amino acid sequences encoded by the DNA sequences," and an "explicit teaching of plasmids or non-B. *excelsa* cells containing the DNA," he nevertheless found that all limitations of the claims were inherent in these publications. Appellants did not dispute inherency. He therefore asserted he had established a prima facie case of anticipation.

Appellants then filed a declaration by Altenbach asserting that neither the Sun nor the Altenbach publication was enabling. But in his final office action, the examiner concluded that the abstracts were enabling and, therefore, that no claims were patentable. The Board affirmed the anticipation rejections as well as others which, in light of our holding, need no analysis.

Appellants appealed here, again arguing that neither abstract was enabling, and also that the examiner's rejection exceeded his authority to rely [*4] on noticed facts, was a denial of due process and was per se improper.

We consider all contested claims together. Claims 21-35 each depend, explicitly or effectively, from independent claim 20. For this reason and because appellants have not separately argued the patentability of claims 21-35, those claims must stand or fall with claim 20. Since appellants also failed to argue the separate patentability of claims 1-3 and 20, all contested claims stand or fall together. *In re Van Geuns, 988 F.2d 1181, 1186, 26 USPQ2d 1057, 1060 (Fed. Cir. 1993); In re King, 801 F.2d 1324, 1325, 231 USPQ 136, 137 (Fed. Cir. 1986).*

II. Standards of Review

Anticipation is a question of fact which we review under the clearly erroneous standard. *In re King, 801 F.2d at 1326, 231 USPQ at 138.* However, enablement of a prior art reference is a question of law, which we review for simple error. *See Reading & Bates Construction Co. v. Baker Energy Resources Corp., 748 F.2d 645, 651-52, 223 USPQ 1168, 1173 (Fed. Cir. 1984)* (holding [*5] that printed brochure was non-enabling as a matter of law).

III. Standard of Proof

Under *section 102(b)*, anticipation requires that the prior art reference disclose, either expressly or under the principles of inherency, every limitation of the claim. *In re King, 801 F.2d at 1326, 231 USPQ at 138; RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.), cert. dismissed, 468 U.S. 1228 (1984).* Appellants do not here dispute that the two abstracts do so.

But to be prior art under *section 102(b)*, a reference must be enabling. *Paperless Accounting, Inc. v. Bay Area Rapid Transit Sys., 804 F.2d 659, 665, 231 USPQ 649, 653 (Fed. Cir. 1986), cert. denied, 480 U.S. 933 (1987); In re Donohue, 766 F.2d 531, 533, 226 USPQ 619, 621 (Fed. Cir. 1985)* (citing *In re Sasse, 629 F.2d 675, 681, 207 USPQ 107, 111 (CCPA 1980))*. That is, it must put the claimed invention in the [*6] hands of one skilled in the art. *In re Donohue, 766 F.2d at 533, 226 USPQ at 621.* This appellants do dispute.

IV. Burdens of Proof and Production

The examiner bears the burden of presenting at least a prima facie case of anticipation. *In re King, 801 F.2d at 1327, 231 USPQ at 138-39; In re Wilder, 429 F.2d 447, 450, 166 USPQ 545, 548 (CCPA 1970).* Only if that burden is let, does the burden of going forward shift to the applicant. *In re King, 801 F.2d at 1327, 231 USPQ at 138-39; In re Wilder, 429 F.2d at 450, 166 USPQ at 548.* Once a prima facie case is established and rebuttal evidence is submitted, the ultimate question becomes whether, based on the totality of the record, the examiner carried his burden of proof by a preponderance. *See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).* We see no reason to change this allocation of burdens just because anticipation here turns on enablement.

[*7] V. Enablement

The examiner, relying on *In re LeGrice, 301 F.2d 929, 133 USPQ 365 (CCPA 1962)*, asserted initially that the Sun and Altenbach publications provided sufficient information to enable those skilled in the art to make the claimed composition when taken in conjunction with their independent knowledge. He did not cite references for such knowledge. The declaration of Altenbach, however, asserted:

> I have reviewed the abstracts cited herein by Sun et al. and Altenbach et al. One of ordinary skill in the art *reading only these abstracts* would be unable to obtain cDNA encoding the 2S seed storage protein claimed herein without additional information. Specifically, without information as to the nature of the probe,

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how to purify the protein and the sequence that is relevant to probe design, it would not be possible to utilize the information in the abstracts without undue experimentation (directed to the above-mentioned goals) in order to succeed.

(Emphasis added). However, the declaration said nothing further on this issue, and appellants did not submit any additional evidence of non-enablement.

In the final office action, [*8] the examiner took official notice of the availability to one skilled in the art of "protein purification and sequencing techniques, molecular weight determination techniques, sedimentation rate determination techniques, oligonucleotide synthesis techniques, DNA isolation techniques, mRNA isolation techniques, cDNA synthesis techniques, and hybridization techniques." The examiner further noted that "no evidence of the recalcitrance of the Brazil nut protein to conventional protein purification or sequencing procedures was presented," nor evidence "regarding the recalcitrance of the gene encoding the Brazil nut protein to conventional probing or cloning techniques." Therefore, the examiner concluded that the disclosure of the actual amino acid sequence of the protein was not necessary, because the claimed DNA could be made from the information in the publications, using these well known techniques. The Board held that the declaration failed to establish that a person having ordinary skill in the art would have had any difficulty purifying the protein or, having done so, any difficulty constructing the probe and ultimately making the claimed DNA.

Appellants argue that because he cited [*9] no references to establish the level of skill in the art, the examiner's rejection exceeded case authority to rely on noticed facts, denied them due process and was per se improper. Alternatively, appellants assert that the Altenbach affidavit was sufficient to rebut enablement.

A. Lack of Citation of Prior Art

1. Exceeding Case Authority Concerning Official Notice

Relying on *In re Ahlert, 424 F.2d 1088, 1092, 165 USPQ 418, 421 (CCPA 1970)*, appellants argue that officially noticed facts may only play a minor role in filling evidentiary gaps and cannot provide the totality of evidence to support a rejection. *See also In re Kaplan, 789 F.2d 1574, 1580, 229 USPQ 678, 683 (Fed. Cir. 1986)* ("Even if obviousness of the variation is predicated on the level of skill in the art, prior art evidence is needed to show what that level of skill was."). Appellants thus ar-

gue the examiner exceeded the case authority allowing reliance on officially noticed facts.

In making a rejection, however, an examiner may "take notice of facts beyond the record which, while not generally notorious, are capable of such [*10] instant and unquestionable demonstration as to defy dispute." *In re Ahlert, 424 F.2d at 1091, 165 USPQ at 420* (citing *In re Knapp Monarch Co., 296 F.2d 230 (CCPA 1961))*. Furthermore, although the cases provide that the examiner should cite prior art references to support assertions of technical fact in esoteric technologies or specific knowledge of the prior art, this is solely to put the applicant on notice so that the correctness of the assertion can be challenged. *Id., 165 USPQ at 420-21*.

In this case, the noticed facts did not provide the totality of the evidence used in support of an argument, as in *Ahlert*. Rather, here, the examiner relied heavily on the information disclosed in the publications in concluding that they enabled one skilled in the art to practice the invention using well known techniques. That the cited well known techniques exist in the art is beyond dispute and appellants do not dispute it. In fact, appellants' own specification acknowledges that "conventional" methods are used in obtaining the claimed DNA. [2]

> 2   Appellants' specification states that "in addition to the techniques described below, the practice of the present invention will employ *conventional techniques* of molecular biology, microbiology, recombinant DNA technology, and plant science, *all of which is within the skill of the art.*" (emphasis added).

[*11] 2. Denying Due Process

Appellants argue, nevertheless, that without citation of prior art, they lack the notice necessary to contest the correctness of the examiner's assertions as to the level of skill in the art. Thus, appellants effectively argue they were denied due process. [3]

> 3   While appellants neither mention "due process" nor cite the constitution, they complain of lack of notice which deprives them of a fair opportunity to challenge the rejection. Moreover, they rely on no statutory or regulatory right to such notice. We therefore construe this to be a complaint of deprivation of constitutional due process.

Where, however, an applicant is sufficiently put on notice of the basis of the rejection, and does not challenge the truth of the examiner's assertion, there is no necessity for such citations. *See In re Lundberg, 244*

F.2d 543, 551, 113 USPQ 530, 537 (CCPA 1957) (examiner's statement accepted as true in light of appellant's failure to question its accuracy [*12] or to present contradicting evidence); *In re Fox, 471 F.2d 1405, 1406-07, 176 USPQ 340, 341 (CCPA 1973)* (affirming rejection under *35 U.S.C. § 103* without citation of any prior art based on facts that were unchallenged by the appellant). Certainly, appellants cite no authority that in such circumstances citations are constitutionally required.

Moreover, the cases relied on by appellants otherwise requiring citation to demonstrate the level of ordinary skill in the art are distinguishable as concerning obviousness, which, unlike anticipation, requires a showing of motivation, and because in those cases, unlike in this appeal, the accuracy of the examiner's assertions was challenged.

In our view, appellants were adequately apprised of the basis of the examiner's rejection; furthermore, they concede that the techniques cited by the examiner are well known in the art. Therefore, even if notice were inadequate, no substantial right was thereby prejudiced.

3. Per Se Error

Finally, appellants seemingly argue that the examiner's lack of citation to support the asserted level of skill in the art makes the rejection [*13] improper per se. This is so, appellants suggest, because without such citation, there is no record by which they can argue that the examiner erred. As the PTO points out in its brief, however, the procedures established by 37 C.F.R. § 1.107(b) (1993) expressly entitle an applicant, on mere request, to an examiner affidavit that provides such citations. In this case, appellants admittedly failed to request such an affidavit. Appellants' failure to avail themselves of this procedure entitling them to such citations, without making any showing whatsoever, waived any right thereto under well established rules of law. Accordingly, appellants' challenge on this ground fails due to their procedural default.

Moreover, the existence of this regulation makes all the clearer that by failing to cite prior references for the level of skill in the art, the examiner did not automatically exceed his authority under the case law. Indeed, the premise of the rule is that the examiner *may* omit such citations. Otherwise, there would be no need for the regulation because every rejection would already contain all citations.

Similarly, this procedure, so readily available, helps save the lack of citation [*14] in an office action from possible constitutional infirmity as denying reasonable notice and hence due process. This must be so because it provides a complete and timely cure, unless we could conclude that the rule itself violates the constitution, a

conclusion neither suggested by appellants nor any case law of which we are otherwise aware.

Appellants' fallback position is that assuming the examiner did make out a prima facie case of enablement and hence anticipation, they rebutted it and the examiner wrongly found the declaration insufficient.

B. The Altenbach Declaration as Rebuttal

Although appellants maintain that the Altenbach declaration is sufficient to rebut the examiner's assertion of enablement, all it states is that certain information is missing from the abstracts, without which *they* are not enabling. The PTO, however, has conceded that the information is missing and that without independent knowledge of those skilled in the art, the claimed composition could not be made. That certain information is missing does not by itself establish that one skilled in the art would not be enabled to practice an invention. After all, they have independent knowledge. Moreover, much [*15] information was included in the abstracts.

It is undisputed that the publications disclosed the location and characteristics of the relevant 7 kD sulfur-rich protein. The examiner then took official notice that standard techniques were available for separating proteins, determining sedimentation rates and molecular weight, and determining amino acid sequences. These would enable isolation of the subunit of the protein and determination of its structure. The publications also disclosed that an 18 base synthetic DNA fragment corresponding to positions 30-35 of the 7 kD protein was used as a probe. The examiner asserted that with this description of the probe, one of ordinary skill in the art could use conventional techniques to make the probe, and therefore, to practice the claimed invention.

Therefore, the Altenbach declaration is legally insufficient to rebut the examiner's conclusion. Although Altenbach makes the unsupported assertion that without the missing information the invention could not be practiced without undue experimentation, she does not explain why conventional methods listed by the examiner would not work, given the information disclosed in the abstracts. This could [*16] have been done, for example, by showing that results would be uncertain using the known methods, that only certain of the known methods would work, or that additional or unique steps were required to achieve the claimed composition. No such assertions were included in the declaration, however.

Therefore, our decision turns on appellants' failure of proof in rebutting the examiner's prima facie case of enablement. That appellant might have produced a declaration by Altenbach or someone else demonstrating such problems makes no difference. Determining the ultimate scientific truth about enablement is beyond our

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function here. Our task is merely to judge whether the declaration actually filed was legally sufficient. Here, it was not, because it was wholly conclusory, and particularly because it did not address the asserted applicability and feasibility of the well known techniques cited by the examiner in light of the specific information disclosed in the abstracts. Thus, on the precise facts of this case, we hold that these deficiencies were fatal as a matter of law.

VI. Conclusion

We therefore conclude that on this record, the Sun and Altenbach publications were shown to be enabling. [*17] Consequently, in light of appellants' concession that all elements of the claims are disclosed or inherent in the two abstracts and their failure to argue separate patentability of the claims, we hold that the Board's finding of anticipation is not clearly erroneous and supports the rejection as to all claims. [4]

> 4   We need not reach the issue of obviousness in light of our holding on the anticipation rejections, since all claims stand or fall together.

CONCUR BY: MAYER

CONCUR

MAYER, *Circuit Judge,* concurring.

I agree that the affidavit filed by Sun was insufficient to rebut the PTO's prima facie case of anticipation. Because Sun admitted that the claimed subject-matter was inherently disclosed in the cited abstracts, the prima facie case was established. Sun then had to come forward with evidence sufficient to rebut this prima facie case, even though the ultimate burden to establish anticipation remained with the PTO. Because he did not he cannot prevail, and that is sufficient reason to affirm.
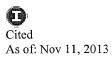
Sun responded to the examiner's assertion [*18] of anticipation that the abstracts were nonenabling and thus could not be cited as prior art. In support, he submitted

Altenbach's affidavit, which was a conclusory statement that, without more information than was supplied in the abstracts, one of ordinary skill could not produce the claimed composition without undue experimentation. The examiner took official notice of well known techniques and said that with them, one of ordinary skill could produce the composition. Although citing no art to support his assertion, the examiner observed that there was nothing in Sun's evidence to suggest the techniques would not work, the results would be uncertain, or any unconventional steps would be necessary to achieve the claimed composition. Sun did not challenge the existence of the techniques, but did argue that their application would not be possible given the limited information disclosed in the abstracts. Altenbach's affidavit, however, does not support this argument because it does not address the cited techniques, or refer to any unique properties of the claimed composition that would render it recalcitrant to these methods. The PTO established its prima facie case with the admitted [*19] inherent disclosures of the abstracts. Although lacking prior art support, the examiner's arguments on the enablement of the abstracts do bolster the PTO's position and contribute to proof of anticipation by a preponderance of the evidence. Given its conclusory nature and failure to specifically meet the examiner's arguments, Altenbach's affidavit alone cannot overcome the PTO's prima facie case.

In the absence of the prima facie case resulting from Sun's admissions of inherency, however, the examiner's assumption that one of ordinary skill could have successfully applied the noticed techniques to the information in the abstracts would not have been sufficient to establish a prima facie case because it lacked prior art support. To establish a prima facie case, the PTO may not rely on unsupported assertions about the level of ordinary skill in the art or bare conclusions that one of ordinary skill could apply such skill to obtain the claimed invention. *In re Rijckaert,*   F.3d   , No. 93-1206, slip op. at 5 (Fed. Cir. November 23, 1993).

IN RE BRUCE BEASLEY

04-1225

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

117 Fed. Appx. 739; 2004 U.S. App. LEXIS 25055

December 7, 2004, Decided

NOTICE: [**1] THIS DECISION WAS ISSUED AS UNPUBLISHED OR NONPRECEDENTIAL AND MAY NOT BE CITED AS PRECEDENT. PLEASE REFER TO THE RULES OF THE FEDERAL CIRCUIT COURT OF APPEALS FOR RULES GOVERNING CITATION TO UNPUBLISHED OR NONPRECEDENTIAL OPINIONS OR ORDERS.

PRIOR HISTORY: (Serial No. 07/636,839).

DISPOSITION: Vacated and remanded.

JUDGES: Before LOURIE, Circuit Judge, ARCHER, Senior Circuit Judge, and DYK, Circuit Judge. Opinion for the court filed by Circuit Judge LOURIE. Dissenting opinion filed by Circuit Judge DYK.

OPINION BY: LOURIE

OPINION

[*739] LOURIE, *Circuit Judge*.

Bruce Beasley appeals from the decision of the United States Patent and Trademark Office ("PTO") Board of Patent Appeals and Interferences affirming the rejection of claims 1-6 of U.S. Patent Application 07/636,839 as obvious under *35 U.S.C. § 103. Ex parte Beasley, 2002 Pat. App. LEXIS 329, Appeal No. 2001-2202, Paper No. 38 (B. P.A.I. Aug. 29, 2002)* ("*Decision on Appeal*"); *Ex parte Beasley*, Appeal No. 2001-2202, Paper No. 40 (B. P.A.I. Oct. 27, 2003) ("*De-*

cision on Request for Rehearing"). Because the Board's key factual findings relating to its obviousness analysis are not supported by substantial evidence, the Board erred in concluding that the claims would have been obvious [**2] as a matter of law. We accordingly *vacate and remand.*

[*740] BACKGROUND

On January 2, 1991, Beasley filed U.S. Patent Application 07/636,839 directed to the generation of images or markings on a video display screen using a light pen, so as to point to or otherwise indicate information of interest. Representative claim 1 recites:

1. In a system for forming an image on a display screen scanned in frames by a beam:

a light pen movable relative to the screen and having a light sensing element for providing a signal when the position of the light pen coincides with the position of the beam,

a memory having a plurality of addressable storage locations, means for *mapping the display screen into the memory on a point-by-point basis* by sequentially addressing the memory locations in synchronization with the position of the beam *to provide a one-to-one correspondence* between the memory locations and the points on the screen,

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means responsive to the signal from the light pen for writing data into the memory at locations corresponding to the position of the light pen on the screen during successive frames,

means for reading the data out of the memory locations as they are addressed, [**3] and

means responsive to the data read out of the memory for producing an image corresponding to the points where the light pen is positioned during successive frames.

(emphases and paragraphing added).

Previously, the '839 application had been the subject of an appeal to this court, which affirmed the rejection of claims 1-6 under *35 U.S.C. §§ 102* and *103* in view of *U.S. Patent 3,832,485* ("Pieters"). *In re Beasley, 1999 U.S. App. LEXIS 16695, No. 99-1055, 1999 WL 515480 (Fed. Cir. July 20, 1999)* (nonprecedential) ("*Beasley* I"). [1] Beasley thereafter filed a Continued Prosecution Application, in which he amended independent claims 1 and 4 to specifically include the feature of "mapping the display screen into the memory on a point-by-point basis ... to provide a one-to-one correspondence" between the memory locations and the points on the screen (hereinafter referred to as the "point-by-point mapping limitation"). [2]

[**4]

1 In *Beasley* I, claims 1, 3, 4, and 6 had been rejected as being anticipated by Pieters, and claims 2 and 5 had been rejected as being obvious in view of the same. *Beasley I, 1999 U.S. App. LEXIS 16695, 1999 WL 515480 at **1.* Pieters is directed to an apparatus for creating delineations on images using, *inter alia*, a light pen. Pieters, abstract.

2 In the prior appeal, Beasley argued that the point-by-point mapping limitation was to be read into independent claims 1 and 4, in an attempt to avoid anticipation by Pieters. The court in *Beasley* I concluded that the language of the claims was not sufficiently narrow to require this limitation to be read therein, and consequently affirmed the anticipation rejection. *Beasley I, 1999 U.S. App. LEXIS 16695, 1999 WL 515480 at **3.* After amending the claims to expressly recite the point-by-point mapping limitation, Beasley is now before us again. Although the point-by-point mapping limitation is cast in means-plus-function form, *see 35 U.S.C. § 112, P6 (2000)*, the parties

do not dispute whether any of the cited references discloses an equivalent structure. Accordingly, we need not identify or consider the structures in Beasley's application that correspond to that function.

Observing that Pieters, by itself, did not disclose the point-by-point mapping limitation, the examiner rejected the amended claims for obviousness under *§ 103* in view of Pieters combined with either one [**5] of *U.S. Patent 3,973,245* ("Belser") or *U.S. Patent 4,847,604* ("Doyle"). [3] The examiner cited [*741] Belser and Doyle as each disclosing "a conventional bit map memory mapping a display screen into the memory on a point by point basis," and that "it would have been obvious to one of ordinary skill in the art to substitute Belser's [or Doyle's] bit map memory" for the content addressable memory ("CAM") used in Pieters. Jan. 7, 2000 Office Action at 2-3. A skilled artisan would have been motivated to make such a combination, alleged the examiner, "because image data stored in the bit map format can be read out rapidly." *Id.*

3 Belser concerns a method and apparatus for "converting information in coded form into a dot matrix or raster form," Belser, col. 2, ll. 22-24, and presents in considerable detail an algorithm for reformatting data. Belser, col. 5, l. 23 through col. 9, l. 20. Doyle is directed to a system that allows a user to point to a feature on an image and cause descriptive information (*e.g.*, text or a magnified view) to appear. Doyle, col. 11, l. 13 through col. 12, l. 18.

[**6] Beasley responded that the examiner had failed to establish a *prima facie* case of obviousness because replacing the CAM in Pieters with the memories in Belser and Doyle would require "a complete restructuring" of the system shown in Pieters, which was "not within the purview of obviousness." Apr. 6, 2000 Resp. to Office Action at 2. Arguing that the cited references failed to provide any motivation for the combination, Beasley stressed that the examiner's suggestion for the substitution "appeared to be based entirely on applicant's own disclosure" in an attempt to "piece together" the prior art so as to render the claimed invention obvious. *Id.* Beasley criticized the rationale proffered by the examiner--that "data stored in a bit map format can be read out rapidly"--as "falling far short of the necessary motivation for the combination." *Id.*

The examiner rejected Beasley's arguments in a final office action, by repeating the substance of the Jan. 7, 2000 Office Action, and by further alleging that it was "well known in [the] computer display art to substitute a bit map memory for a conventional memory such as the memory used by Pieters." Jun. 14, 2000 Office Action

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[**7] at 4. Insisting that the "advantage of using ... bit map memory over ... conventional memory [was] well recognized," the examiner listed three advantages: (1) increasing the display rate; (2) ensuring proper correlation of image locations with display locations; and (3) minimizing data processing and storage requirements. *Id.* In view of those "well recognized" advantages, reasoned the examiner, "it would have been obvious to one of ordinary skill" to make the substitution. *Id.* at 5.

Beasley appealed the final rejection to the Board, reiterating his arguments against obviousness. The Board agreed with the examiner's reasoning and affirmed [4] the rejection of claims 1-6. [5] *Decision on Appeal at 8.* The Board found that the cited references suggested to skilled artisans "that if more rapid readout of image data is desired, the bit map memory, rather than the CAM of Pieters, should be employed." *Id. at 5-6.* With respect to Beasley's restructuring argument, the Board stated that "the artisan skilled in the image display and memory arts would [*742] have been well aware of the restructuring" involved when making the substitution. *Id. at 6.* Disagreeing with Beasley that the [**8] examiner's proposed substitution of one memory type for another was "unsupported," the Board reasoned that the "artisan would clearly have understood, from the applied references, the different types of memories available (CAM versus bit map), and their comparative advantages, and would have chosen implementation of one over the other for the advantages sought." *Id.* Concluding that the examiner established a *prima facie* case of obviousness, the Board sustained the rejection of claims 1-6.

> [4] To the extent the Board adopted the examiner's position as its own, we shall refer to the examiner's findings and conclusions as those of the Board. *See In re Paulsen, 30 F.3d 1475, 1478 n.6 (Fed. Cir. 1994).*
>
> [5] Our discussion will focus on independent claim 1, and, in particular, the point-by-point mapping limitation. The only other independent claim is claim 4, which is directed to a method, but is otherwise similar to independent claim 1 in all material respects. Since Beasley has not made separate patentability arguments for claim 4, or for any of the dependent claims, those claims will stand or fall together with claim 1. *See In re Kaslow, 707 F.2d 1366, 1376 (Fed. Cir. 1983).*

[**9] Beasley filed a request for reconsideration, which the Board denied. *Decision on Request for Rehearing at 5.* Beasley timely appealed the Board's decision to this court, and we have jurisdiction pursuant to *28 U.S.C. § 1295(a)(4)(A).*

DISCUSSION

A claimed invention may be found to have been obvious "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." *35 U.S.C. § 103(a) (2000).* Whether an invention would have been obvious under *§ 103* is a question of law based on underlying findings of fact. *In re Kotzab, 217 F.3d 1365, 1369 (Fed. Cir. 2000).* We review the Board's legal conclusion of obviousness *de novo,* and its underlying factual determinations for substantial evidence. *In re Gartside, 203 F.3d 1305, 1316 (Fed. Cir. 2000).* Substantial evidence is "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Id. at 1312* (quoting [**10] *Consolidated Edison Co. v. NLRB, 305 U.S. 197, 229, 83 L. Ed. 126, 59 S. Ct. 206 (1938)).*

On appeal, Beasley urges reversal on the basis that the record does not support the Board's determination that the examiner established a *prima facie* case of obviousness. For a *prima facie* case of obviousness to exist, there must be "some objective teaching in the prior art or ... knowledge generally available to one of ordinary skill in the art [that] would lead that individual to combine the relevant teachings of the references." *In re Fine, 837 F.2d 1071, 1074 (Fed. Cir. 1988).* "The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved." *Kotzab, 217 F.3d at 1370.*

The presence or absence of a motivation to combine references is a question of fact, *In re Dembiczak, 175 F.3d 994, 1000 (Fed. Cir. 1999),* which is evaluated under the substantial evidence standard. *Gartside, 203 F.3d at 1316.* Beasley contends that we have before us a case of impermissible hindsight reconstruction, [**11] in which the examiner's finding of a motivation to substitute the memory used in either Belser or Doyle for the CAM in Pieters rests on generalized statements of advantages without regard to the desirability or the feasibility of modifying Pieters. Given the "subtle but powerful attraction of a hindsight-based obviousness analysis," we require a "rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references." *Dembiczak, 175 F.3d at 999.* This is consonant with the obligation of the Board to develop an evidentiary basis for its factual findings to allow for judicial review under the substantial evidence standard that is both deferential and [*743] meaningful. *See In re Lee, 277 F.3d 1338, 1344 (Fed. Cir. 2002).*

In evaluating the Board's finding of motivation, we look to the record, for "all of the relevant information upon which the Board relied in rendering its decision."

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Gartside, 203 F.3d at 1314. "That record, when before us, is closed, in that the Board's decision must be justified within the four corners of that record." *Id.* For the purposes of the present appeal, the record indicates [**12] that there have been no less than five occasions, since the filing of the Continued Prosecution Application with the amended claims, on which the Board and the examiner have had the opportunity to develop a factual record that establishes substantial evidence of a motivation to combine Pieters with either Belser or Doyle. They failed to do so in each instance. Our review of (1) the Jan. 7, 2000 Office Action; (2) the Jun. 14, 2000 Office Action; (3) the Feb. 13, 2001 Examiner's Answer; (4) the *Decision on Appeal*; and (5) the *Decision on Request for Rehearing* reveals that the assertions pertaining to the advantages of one type of memory over another that had been advanced by the examiner and the Board for the express purpose of showing motivation for the proposed substitution have been set forth without any supporting citations to relevant portions of either Pieters, Belser, Doyle, or any other authority.

For example, the examiner's allegation in the Jan. 7, 2000 Office Action that "image data stored in the bit map format can be read out rapidly" has been repeated axiomatically throughout the record in justifying the replacement of the CAM in Pieters. Neither the Board nor [**13] the examiner has identified in the record any source of information--either from the references cited or otherwise--from which they base their comparison of the relative speed advantages of "bit map memories" over CAMs. Similarly, the assertion in the Jun. 14, 2000 Office Action that the "advantage of using ... bit map memory over ... conventional memory is well recognized" appears unaccompanied by any indication of its origins. [6]

> 6   While the abstract of Doyle was cited for the proposition that the use of "bit map memory" ensures proper correlation of image locations with display locations, and minimizes data processing and storage requirements, a closer inspection of Doyle reveals that these "advantages" arise out of a specific arrangement for encoding image information, rather than from any intrinsic characteristic of "bit map memories" in general. Doyle, col. 4, ll. 15-19 ("The advantages ... stem from encoding information about a video image as a pixel bit map and a color map in which the addresses or indices of the color map are correlated with the addresses or pointers to strings of descriptive information about predefined features of the video image.").

[**14] In adopting the examiner's position, the Board made no effort to substantiate the examiner's assertions by invoking any identifiable authority. Instead,

the Board relied on the examiner's and its own knowledge as skilled artisans. For example, the Board claimed that "the secondary references" suggested to skilled artisans "that if more rapid readout of image data is desired, the bit map memory, rather than the CAM of Pieters, should be employed." *Decision on Appeal at 5-6.* Similarly, in dismissing Beasley's restructuring argument, the Board alleged that a skilled artisan would have been "well aware" of the restructuring involved. *Id. at 6.* Under the MPEP provisions [7] in effect [*744] at the time, such generalized claims of what "the secondary references" teach and of what the skilled artisan would have been "well aware" fail to satisfy the level of specificity that is required. *Cf. Kotzab, 217 F.3d at 1371* ("Particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed."). The MPEP provides guidelines for relying on official notice and [**15] personal knowledge, which the examiner did not follow in this case:

> The rationale supporting an obviousness rejection may be based on common knowledge in the art or "well-known" prior art. The examiner may take official notice of facts outside of the record which are capable of *instant and unquestionable demonstration* as being "well-known" in the art. *In re Ahlert, 57 C.C.P.A. 1023, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970)* ...
>
> ...
>
> When a rejection is based on facts within the personal knowledge of the examiner, *the data should be stated as specifically as possible*, and the facts must be supported, when called for by the applicant, by an affidavit from the examiner. Such an affidavit is subject to contradiction or explanation by the affidavits of the applicant and other persons. See *37 CFR 1.104(d)(2).*
>
> ...
>
> For further views on official notice, see *In re Ahlert, 57 C.C.P.A. 1023, 424 F.2d 1088, 1091, 165 USPQ 418, 420-421 (CCPA 1970)* ("*Assertions of technical facts in areas of esoteric technology must always be supported by citation of some reference work*" and "allegations concerning specific 'knowledge' [**16] of

the prior art, which might be peculiar to a particular art should also be supported." ...

MPEP § 2144.03 (7th ed. 1998) (emphases added); *see also* MPEP § 2144.03 (7th ed., rev. 1, 2000). Certainly, the relative speed advantages of CAMs vis-a-vis "bitmap memories" and the feasibility of substituting one for the other can hardly be described as a fact that is of "instant and unquestionable demonstration" for the purpose of taking official notice unsupported by any citation.

> 7 The Manual of Patent Examining Procedure ("MPEP") is commonly relied upon by patent examiners on procedural matters. *Litton Sys., Inc. v. Whirlpool Corp., 728 F.2d 1423, 1439 (Fed. Cir. 1984)*. "While the MPEP does not have the force of law, it is entitled to judicial notice as an official interpretation of statutes or regulations as long as it is not in conflict therewith." *Molins PLC v. Textron, Inc., 48 F.3d 1172, 1180 n. 10 (Fed. Cir. 1995)*.

The record reflects that the examiner and the [**17] Board have managed to find motivation for substituting one type of memory for another without providing a citation of any relevant, identifiable source of information justifying such substitution. The statements made by the Examiner, upon which the Board relied, amount to no more than conclusory statements of generalized advantages and convenient assumptions about skilled artisans. At least under the MPEP then in effect, such statements and assumptions are inadequate to support a finding of motivation, which is a factual question that cannot be resolved on "subjective belief and unknown authority." *Lee, 277 F.3d at 1344*. Under such circumstances, with respect to core factual findings, "the Board must point to some concrete evidence in the record in support" of them, rather than relying on its assessment of what is "well recognized" or what a skilled artisan would be "well aware." *In re Zurko, 258 F.3d 1379, 1385-86 (Fed. Cir. 2001)*. "To hold otherwise would render the process of appellate review for substantial evidence on the record a meaningless exercise." *Id. at 1386* (citing *Baltimore & Ohio R.R. Co. v. Aberdeen & Rockfish R.R. Co., 393 U.S. 87, 91-92, 21 L. Ed. 2d 219, 89 S. Ct. 280 (1968))*. [**18]

The PTO, perhaps realizing the deficiencies in the record in this regard, provides numerous citations in its brief to specific [*745] passages in Pieters, Belser, and Doyle in a valiant attempt to muster substantiation for the Board's findings. We cannot consider such *post hoc* attempts at bolstering the record in our review for substantial evidence. *Burlington Truck Lines, Inc. v. United States, 371 U.S. 156, 168, 9 L. Ed. 2d 207, 83 S.*

Ct. 239 (1962) ("Courts may not accept appellate counsel's *post hoc* rationalization for agency action."). Our review must be limited to those grounds relied on and articulated by the Board; otherwise, the applicant may be deprived of a fair opportunity to support his position. *See Lee, 277 F.3d at 1345*; *see also SEC v. Chenery Corp., 332 U.S. 194, 196, 91 L. Ed. 1995, 67 S. Ct. 1575 (1947)* ("The court is powerless to affirm the administrative action by substituting what it considers to be a more adequate or proper basis.").

CONCLUSION

For the above reasons, we conclude that the Board's determination that Beasley's claimed invention would have been obvious in view of the combination of Pieters with either Belser or Doyle is not [**19] supported by substantial evidence. Accordingly, we vacate the Board's decision and remand for further proceedings not inconsistent with this opinion.

DISSENT BY: DYK

DISSENT

> DYK, *Circuit Judge*, dissenting.

I respectfully dissent. Under our decision in *Lee* the Board may not rely on common knowledge and common sense in rejecting a claim as obvious. *In re Lee, 277 F.3d 1338, 1344-45 (Fed. Cir. 2002)*. But both the examiner and the Board are presumed to be skilled in the art, *id. at 1345*, as the majority recognizes, *ante* at 8. They may properly rely on that knowledge in making rejections for obviousness, but "when they rely on what they assert to be general knowledge to negate patentability, that knowledge must be articulated and placed on the record." *Lee, 277 F.3d at 1345*.

That is exactly what the examiner and Board have done here. The patent examiner rejected Beasley's claims as obvious over Pieters in view of either Besler or Doyle, finding a motivation to combine in the fact that "image data stored in the bit map format can be read out rapidly." Jan. 7, 2000 Office Action at 2. The examiner sustained his rejection in the subsequent [**20] Office Action and specifically addressed Beasley's argument that there was no motivation to combine. The examiner noted that "the advantage of using the bit map memory over the conventional memory is well recognized" and listed three advantages: (1) increasing the display rate; (2) ensuring proper correlation of image locations with display locations; and (3) minimizing data processing and storage requirements. June 14, 2000 Office Action at 4. The Board agreed with the reasoning of the examiner and further found that an "artisan skilled in the image display and memory arts would have been well aware of the restructuring and manners of address which would

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need to be changed in order to substitute one type of memory for another." *Ex parte Beasley, 2002 Pat. App. LEXIS 329, Appeal No. 2001-2202, Paper No. 38, at 6 (B. P.A.I. Aug. 29, 2002)*. I see no error in the Board's reliance on the PTO's own specialized knowledge. The effect is merely to create a prima facie case, and to shift the burden to the patent applicant. Here the applicant did not refute the factual findings of the Board and the patent examiner, but merely offered lawyer argument to contradict the Board's findings. Under these circumstances the [**21] application was properly rejected.

With this said, I agree that the MPEP provision in effect at the time is not a model of clarity and can be read as recognizing [*746] only a very limited scope for the use of the PTO's expertise. MPEP § 2144.03 (7th ed. 1998). However, the current version appears to allow greater latitude. MPEP § 2144.03 (8th ed., rev. 2, 2004). In future cases, where the PTO has provided us with an interpretation of the new MPEP provisions, we will need to address the extent to which the new version of the MPEP gives the PTO greater scope to rely on its own expert knowledge.

Ex parte Clapp

No Number in Original

Board of Patent Appeals and Interferences

1985 Pat. App. LEXIS 34; 227 U.S.P.Q. (BNA) 972

February. 28, 1985

NOTICE:

ROUTINE OPINION. Pursuant to the Patent Trial and Appeal Board Standard Operating Procedure 2, the opinion below has been designated a routine opinion.

[*1]   Before Bennett, Henon and Spencer, Examiners-in-Chief.

COUNSEL:
Gomer W. Walters, for appellant.

OPINIONBY: HENON

OPINION:
This appeal is from the decision of the examiner rejecting claims 9 through 19, which constitute all the claims remaining in the application.

The invention relates to an auger type mixing apparatus for mixing cementitious materials employing a volatile liquid. Representative claim 9 reads as follows:

9. Apparatus mounted on a vehicle for mixing a cementitious material in which a volatile liquid is employed comprising:

an enclosed mixing chamber sealed to prevent the escape of the volatile liquid and any potentially dangerous fumes;

a solid frame forming the top of said mixing chamer and having an inlet end thereof pivotably mounted on the vehicle;

an easily removable elastomeric trough forming the bottom of said mixing chamber, the elastomeric material selected to be compatible with the materials being mixed;

an auger having a central shaft and mounted in said frame to convey materials through said mixing chamber;

mixing paddles mounted on the shaft of said auger;

a drive motor for said auger mounted on said frame;

a releasable flexible coupling between the aligned shafts of [*2]   said motor and said auger to permit removal of said auger from said frame;

an inlet hopper to introduce substantially dry materials into said mixing chamber;

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liquid injection means to introduce a liquid into said mixing chamber at a distance removed from said inlet hopper to have said substantially dry material form a plug to prevent the liquid and any fumes from backing up said inlet hopper; and

a discharge opening formed in said elastomeric trough.

The references relied on by the examiner are:

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Clemens 2,159,205 May 23, 1939
August 2,709,075 May 24, 1955
Tiemersma 3,199,145 Aug. 10, 1965
Cunningham 3,227,424 Jan. 4, 1966
Zimmerman 3,310,293 Mar. 21, 1967
Futty et al. (Futty) 3,339,898 Sep. 5, 1967
Wilkinson et al. (Wilkinson) 3,348,820 Oct. 24, 1967
Lasar 3,901,483 Aug. 26, 1975
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Claims 9 through 14 and 17 stand rejected as being directed to obvious subject matter within the meaning of *35 U.S.C. 103* in light of the teachings of Zimmerman in view of Wilkinson, Futty, Lasar, Clemens and Cunningham. The examiner contends that Zimmerman discloses the claimed subject matter except for "having the mixing chamber enclosed [*3] with a solid top frame and having a removable auger and having liquid injection means and aligned shafts between the motor and auger and a discharge formed in the elastomeric trough," (final rejection, page 2, paper number 5). The examiner cites Wilkinson as disclosing an enclosed mixing chamber where the enclosure comprises an inverted substantially U-shaped top frame portion and concludes that it therefore would be obvious to the artisan to modify the open frame in Zimmerman to be an enclosed mixing chamber as taught by Wilkinson "if desired." Since Wilkinson also discloses the concept of providing liquid injection means for the introduction of liquid into a mixing chamber remote from the inlet hopper, the examiner concludes that it would therefore be obvious to modify Zimmerman accordingly. Since Lasar discloses the concept of having an auger with mixing paddles mounted thereon wherein the auger is releasably coupled to a frame, the examiner concludes that it would have been obvious to the artisan to modify the auger in Zimmerman as taught by Lasar. Futty is cited to show that it is well known to provide coaxial alignment between an auger shaft and the shaft of a driving motor. [*4] Clemens is cited as disclosing the concept of haivng a discharge opening in a trough. The examiner concludes that it would have been obvious in light of Futty and Clemens to modify the auger motor alignment and discharge opening of Zimmerman to be of the nature suggested by Futty and Clemens. Cunningham is cited as disclosing seal means to preclude leakage of the material within the mixing chamber. The examiner concludes that it would have been obvious in light of the teachings of Cunningham to employ seal means on the modified device of Zimmerman.

Claim 15 stands rejected as being directed to obvious subject matter under *35 U.S.C. 103* in light of the combined teachings of Zimmerman, Wilkinson, Futty, Lasar, Clemens, Cunningham and August. Combining the teachings of Zimmerman, Wilkinson, Futty, Lasar, Clemens and Cunningham in the manner specified supra, the examiner concludes that it would have been further obvious to the artisan in light of the teachings of August to provide spray elements with selectively activated controls since August teaches such devices to be known.

Claims 16, 18 and 19 stand rejected as being directed to obvious [*5] subject matter under *35 U.S.C. 103* in light of the combined teachings of Zimmerman, Wilkinson, Futty, Lasar, Clemens, Cunningham and Tiemersma. Combining the teachings of Zimmerman, Wilkinson, Futty, Lasar, Clemens and Cunningham in the manner specified supra, the examiner concludes that it would have been obvious to further modify the structure of Zimmerman to include a gas-filled bearing housing for sealing purposes.

Rather than reiterate the arguments of appellant and the examiner, reference is made to the brief and answer for the respective details thereof.

Opinion We will not sustain any of the rejections.

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Presuming arguendo that the references show the elements or concepts urged by the examiner, the examiner has presented no line of reasoning, and we know of none, as to why the artisan viewing only the collective teachings of the references would have found it obvious to selectively pick and choose various elements and/or concepts from the several references relied on to arrive at the claimed invention. In the instant application, the examiner has done little more than cite references to show that one or more elements or subcombinations [*6] thereof, when each is viewed in a vacuum, is known. The claimed invention, however, is clearly directed to a combination of elements. That is to say, appellant does not claim that he has invented one or more new elements but has presented claims to a new combination of elements. To support the conclusion that the claimed combination is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed combination or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. We find nothing in the references that would expressly or impliedly teach or suggest the modifications urged by the examiner. Additionally, as aforementioned, we find no line of reasoning in the answer, and we know of none, as to why the artisan would have found the modifications urged by the examiner to have been obvious. Based upon the record before us, we are convinced that the artisan would not have found it obvious to selectively pick and choose elements or concepts from the various references so as to arrive at the claimed invention without [*7] using the claims as a guide. It is to be noted that simplicity and hindsight are not proper criteria for resolving the issue of obviousness. Note *In re Horn, 203 USPQ 969, 971 (CCPA 1979)*. Accordingly, we will not sustain any of the rejections presented.

The decision of the examiner rejecting claims 9 through 19 as being directed to obvious subject matter within the meaning of *35 U.S.C. 103* is reversed.

Legal Topics:

For related research and practice materials, see the following legal topics:
Patent LawClaims & SpecificationsClaim LanguageGeneral OverviewPatent LawNonobviousnessElements & TestsHindsightPatent LawU.S. Patent & Trademark Office ProceedingsExaminationsGeneral Overview

Ex parte William C. Levengood

Appeal No. 92-3654 from Art Unit 1804.

Application for Patent filed June 16, 1990, Serial No. 539,302; which is a continua-
tion of application Serial No. 363,451, filed June 6, 1989, now abandoned; which is a
continuation of application Serial No. 907,858, filed September 15, 1986, now aban-
doned; which is a continuation-in-part of application Serial No. 545,656, filed October 26,
1983, now abandoned; which is a continuation-in-part of application Serial No. 309,607,
filed October 8, 1981, now abandoned. Method For Producing New Varieties Of Plants.

Board of Patent Appeals and Interferences

1993 Pat. App. LEXIS 10; 28 U.S.P.Q.2D (BNA) 1300

April 22, 1993, Decided

NOTICE:

ROUTINE OPINION. Pursuant to the Patent Trial and Appeal Board Standard Operating Procedure 2, the opinion
below has been designated a routine opinion.

[*1]

Before Steiner, Goolkasian and Tarring, Examiners-in-Chief.

COUNSEL:

Ian C. McLeod for Appellant.

Supervisory Patent Examiner - Elizabeth C. Weimar

Examiner - Gary Benzion

OPINIONBY: GOOLKASIAN

OPINION:

Goolkasian, Examiner-in-Chief.

This is an appeal from the examiner's final rejection of claims 6 through 30, which are all the claims remaining in
the application.

Claim 29 is illustrative of the invention and reads as follows:

29. A method for increasing the proportion of altered phenotypes in generations subsequent to at least one proge-
nitor member of a first species of plant, said first species having at least one established phenotype, and said method
comprising:

placing said at least one member of said first species in contact with whole cells and associated materials of a
second species of plant while simultaneously applying an electrophoretic current across said at least one member of said
first species and said whole cells and associated materials of said second species, during a time said at least one member
is in a germinal stage; and

allowing said member of said first species to develop from said germinal stage.

The references relied on by the examiner are:

Levengood 3,822,505 Jul. 9, 1974 [*2]

Janick, *Horticultural Science,* Second Edition, W. H. Freeman and Company, 1963, page 248.

Holl et al. (Holl), *Tissue Culture And Plant Science,* "Genetic Transformation in Plants," Proceedings of the third international congress of plant tissue and cell culture held at the University of Leicester, Leicester, England, July 21-26, 1974, pages 303-306, 308-311 and 320-322.

Appellant's invention is directed to a method for increasing the proportion of mutants in a subsequent generation of a member of a plant species having a recognized and established phenotype. The method involves contacting a member of a first plant species (the recipient) with whole cells and associated materials of a second species (the donor), while the member is in a germinal stage, and simultaneously subjecting the contacted combination to electrophoretic conditions. Appellant believes that mutation occurs via the transduction or migration of genetically associated cell tissue components and macromolecular complexes from the donor (second) species to the recipient (first) species of plant. In a preferred process, the first species of plant comprises corn or tomato and the donor species is Eastern Marsh [*3] cabbage root.

All of appellant's claims stand rejected under *35 U.S.C. § 103* over Levengood in view of the combined teachings of Janick and Holl. We reverse the rejection.

As noted by the examiner, the Levengood Patent describes a method for increasing the proportion of mutants in a single plant species by applying electrical field gradients to the plant while it is in the germinal stage. Importantly, the Levengood reference does not suggest that members of a first plant species should be placed in contact with whole cells and associated materials of a second species while simultaneously applying the electrophoretic current.

The Janick and Holl references are not concerned with the application of electrical current and merely teach standard grafting and/or genetic engineering procedures. Janick describes the grafting of one type of plant onto the rootstock of another type of plant; for example, fruit trees are grafted onto dwarfing rootstocks in order to produce dwarf fruit trees, and watermelon is grafted onto the gourd *Langenaria* to control Verticillium wilt. This reference has little bearing on what is being claimed. The Holl reference teaches that DNA is capable of [*4] being transferred from one species of plant to another, usually by using modified bacteria to infect the plant and incorporate heterologous DNA therein. Importantly, neither Holl nor Janick suggest carrying out their respective processes while simultaneously applying an electrophoretic field.

At pages 4 and 5 of the Answer, the examiner has set forth the rationale for the rejection. The examiner notes that each reference discloses a different aspect of the claimed process. The examiner also notes that all aspects were "well known in the art." The examiner then indicates that because the various aspects of the claimed process were individually known in the art, the modifications of the electrophoretic process of Levengood by exposing Levengood's plant materials to cell- associated materials in order to "graft" or otherwise incorporate the cell associated material into the plants was "well within the ordinary skill of the art at the time the claimed invention was made."

We reverse the rejection because the examiner has used the wrong standard of obviousness.

Obviousness is a legal conclusion, the determination of which is a question of patent law. *In re Papesch, 315 F.2d* [*5] *381, 137 USPQ 43 (CCPA 1963).* In order to establish a *prima facie* case of obviousness, it is necessary for the examiner to present evidence, n1 preferably in the form of some teaching, suggestion, incentive or inference in the applied prior art, or in the form of generally available knowledge, that one having ordinary skill in the art would have been led to combine the relevant teachings of the applied references in the proposed manner to arrive at the claimed invention. See, for example, *Carella v. Starlight Archery, 804 F.2d 135, 231 USPQ 644 (Fed. Cir. 1986); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 227 USPQ 657 (Fed. Cir. 1985).*

n1 The importance of evidence in the examination process is set forth in the following quotation from *In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984):*

The Supreme Court in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), focused on the procedural and evidentiary processes in reaching a conclusion under section 103. As adapted to ex parte proce-

1993 Pat. App. LEXIS 10, *; 28 U.S.P.Q.2D (BNA) 1300

dure, Graham is interpreted as continuing to place the 'burden of proof on the Patent Office which requires it to produce the factual basis for is rejection of an application under sections 102 and 103'. *In re Warner, 379 F.2d 1011, 1016, 154 USPQ 173, 177 (CCPA 1967).* After a *prima facie* case of obviousness has been established, the burden of going forward shifts to the applicant.

[*6]

Motivation for combining the teachings of the various references need not be explicitly found in the references themselves, *In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).* Indeed, the examiner may provide an explanation based on logic and sound scientific reasoning that will support a holding of obviousness. *In re Soli, 317 F.2d 941, 137 USPQ 797 (CCPA 1963).* n2

> n2 Preferably the examiner's explanation should be such that it provides that impetus necessary to cause one skilled in the art to combine the teachings of the references to make the proposed modification. *In re Albrecht, 514 F.2d 1385, 185 USPQ 585 (CCPA 1975).* See also *Fromson v. Advance Offset Plate Inc., 720 F.2d 1565, 219 USPQ 1137 (Fed. Cir. 1983).*

In this case, however, the only suggestion for the examiner's combination of the isolated teachings of the applied references improperly stems from appellant's disclosure and not from the applied prior art. *In re Ehrreich, 590 F.2d 902, 200 USPQ 504 (CCPA 1979).* At best, the examiner's comments regarding obviousness amount to an assertion that one of ordinary skill in the relevant art would have been able to arrive at appellant's invention [*7] because he had the necessary skills to carry out the requisite process steps. This is an inappropriate standard for obviousness. See *Ortho-kinetics Inc. v. Safety Travel Chairs Inc., 806 F.2d 1565, 1 USPQ2d 1081 (Fed. Cir. 1986).* That which is within the capabilities of one skilled in the art is not synonymous with obviousness. *Ex parte Gerlach, 212 USPQ 471 (Bd.App. 1980).* See also footnote 16 of *Pandult Corp. v. Dennison Mfg. Co., 774 F.2d 1082, 1092, 227 USPQ 337, 343 (Fed. Cir. 1985).* That one can reconstruct and/or explain the theoretical mechanism of an invention by means of logic and sound scientific reasoning does not afford the basis for an obviousness conclusion unless that logic and reasoning also supplies sufficient impetus to have led one of ordinary skill in the art to combine the teachings of the references to make the claimed invention.

Our reviewing courts have often advised the Patent and Trademark Office that it can satisfy the burden of establishing a *prima facie* case of obviousness only by showing some objective teaching in either the prior art, or knowledge generally available to one of ordinary skill in the art, that "would lead" that [*8] individual "to combine the relevant teachings of the references." *In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). In re Newell, 891 F.2d 899, 13 USPQ2d 1248 (Fed. Cir. 1989).* Accordingly, an examiner cannot establish obviousness by locating references which describe various aspects of a patent applicant's invention without also providing evidence of the motivating force which would impel one skilled in the art to do what the patent applicant has done.

In the case before us, the examiner has provided references having teachings which go a long way towards providing a scientific explanation for what happened when appellant performed the claimed combination of process steps. However, the references themselves fall far short of providing the "motivation" or "suggestion" to assemble their teachings into a viable process. A *prima facie* case of obviousness has not been made out.

The examiner's rejection of claims 6 through 30 is reversed.

REVERSED

Legal Topics:

For related research and practice materials, see the following legal topics:
Patent LawInequitable ConductGeneral OverviewPatent LawNonobviousnessEvidence & ProcedurePrima Facie ObviousnessPatent LawU.S. Patent & Trademark Office ProceedingsExaminationsGeneral Overview

356 Fed.Appx. 415
This case was not selected for
publication in the Federal Reporter.
Not for Publication in West's Federal Reporter
See Fed. Rule of Appellate Procedure 32.1
generally governing citation of judicial
decisions issued on or after Jan. 1, 2007. See
also Federal Circuit Rule 32.1 and Federal
Circuit Local Rule 32.1. (Find CTAF Rule 32.1)
United States Court of Appeals,
Federal Circuit.

In re Henry GLEIZER.

No. 2009-1373. | Dec. 15, 2009.

Synopsis
Background: Applicant for patent claiming systems and methods for electronically facilitated transactions appealed from final decision of Board of Patent Appeals and Interferences, affirming examiner's rejection of all twenty claims of patent application as obvious.

Holdings: The Court of Appeals, Lourie, Circuit Judge, held that:

[1] patent claim was invalid as obvious, and

[2] patents directing to automated freight calculation system and to software preparing electronic shipping records taught every limitation of patent.

Affirmed.

West Headnotes (3)

[1]   **Patents**
          ⟜ Electricity, electronics and radio
        Patent claim disclosing systems and methods for electronically facilitated transactions was invalid as obvious, in view of patent directed to automated freight calculation system, and patent directed to software preparing electronic shipping records; it was obvious to person

of ordinary skill in the art to use system software along with automated system, claimed "interfaces" were taught by patent directed to calculation system, use of verified payment and shipping information was taught by patent directed to shipping records software, and use of escrow account with claimed system was well known in the art. 35 U.S.C.A. § 103.

1 Cases that cite this headnote

[2]   **Patents**
          ⟜ Electricity, electronics and radio
        Patent directed to automated freight calculation system, and patent directed to software preparing electronic shipping records, taught every limitation of patent claiming automated transaction method for enabling transaction of electronic funds and physical goods between a buyer and a seller, and thus, claimed patent was invalid; patent directed to calculation system disclosed how electronic funds transfer information was accessed and used to enable a payee to receive a payment, and patent directed to shipping records software taught limitation related to printing a label with shipping information. 35 U.S.C.A. § 103.

Cases that cite this headnote

[3]   **Patents**
          ⟜ Claims for processes
        Unless steps of method of patent claim actually recite a specific order, steps are not ordinarily construed to require one unless it is implicitly required that they be performed in order written and thereby mandate narrow construction of claim.

Cases that cite this headnote

*416 Appeal from the United States Patent and Trademark Office, Board of Patent Appeals and Interferences. Serial No. 09/572,128.

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Raymond T. Chen, Solicitor, Office of the Solicitor, United States Patent and Trademark Office, of Arlington, VA, for the Director of the United States Patent and Trademark Office. With him on the brief were Sydney O. Johnson, Jr., and Scott C. Weidenfeller, Associate Solicitors. Of counsel was Thomas W. Krause, Associate Solicitor.

Before LOURIE, DYK, Circuit Judges, and KENDALL, District Judge. *

Opinion

LOURIE, Circuit Judge.

Henry Gleizer appeals from the final decision of the Board of Patent Appeals and Interferences ("Board") affirming the examiner's rejection of all twenty claims of appellant's patent application as obvious under 35 U.S.C. § 103. *Ex parte Gleizer*, No.2007-2033 (B.P.A.I. Mar. 6, 2008). Because *417 the Board did not err in its decision, we *affirm*.

BACKGROUND

Gleizer filed U.S. Patent Application 09/572,128 (the "#128 application" or "Gleizer's application") on May 17, 2001, claiming priority from a provisional application filed on August 27, 1999. Gleizer's application claims Systems and Methods for Electronically Facilitated Transactions. Claim 89 of the #128 application reads as follows:

89. An automated transaction method for enabling a transaction of electronic funds and physical goods between a buyer and a seller, said automated transaction method comprising:

a. accessing information comprising:

(1) an electronic funds payment instrument information corresponding to said transaction of said electronic funds, and

(2) a shipping information corresponding to said transaction of said physical goods, said shipping information comprising a shipping address;

b. receiving said electronic funds using said electronic funds payment instrument information;

c. printing a shipping label comprising said shipping information, and a shipment tracking information;

d. checking a delivery status of said physical goods using said shipment tracking information; and

e. disbursing said electronic funds to a party comprising a customer selected from the group consisting of said seller and said buyer.

The patent examiner assigned to the #128 application issued a final rejection of all pending claims. The examiner found that U.S. Patent 6,219,653 ("O'Neill") taught all of the limitations of claim 89 of Gleizer's application, with the exception of "printing a shipping label" as recited in subparagraph (c) of claim 89. The examiner cited U.S. Patent 6,889,194 ("Kadaba") as teaching that limitation. The examiner concluded that one skilled in the art would have found the combination of O'Neill and Kadaba to have been obvious. The examiner therefore rejected claim 89. Claims 98 and 101 are independent claims that recite machines performing the method of claim 89. The examiner found that those claims were substantially similar to claim 89, and were also obvious. The remaining claims are dependent upon claims 89, 98, and 101. Dependent claims 90 and 102 add a limitation that the "party" comprises a broker hosting the transaction. The examiner found that those claims were also substantially similar to claim 89, and were obvious. Claim 91 and 103 add a limitation that the electronic funds payment instrument information comes from a group that includes different types of financial account information. The examiner found that the use of an automated clearing house ("ACH") in O'Neill teaches the claimed *Markush* group. Claims 92, 97, 100, 104, and 108 add verification of payment and shipping information and the use of such verified information in the claimed transaction method. The examiner found that O'Neill and Kadaba disclose the fact that such information can be verified, thereby rendering those claims obvious. Claims 93 and 105 add a claim limitation for placing electronic funds in escrow. The examiner found that the use of an escrow was well-known to those of ordinary skill in the art and that those claims would have been obvious. For the same reason, the examiner also found claims 94, 95, 96, 99, 106, and 107 to be obvious. Gleizer appealed the examiner's rejections to the Board.

*418 The Board affirmed the examiner's decision. On each of the claims at issue, the Board agreed with the examiner that together O'Neill and Kadaba taught every limitation of the claim. The Board rejected Gleizer's argument that there was no reason to combine the two pieces of prior art cited by the examiner. The Board found that O'Neill is directed to a freight calculation system and that generation of freight data presents a need to print details of shipping transactions. The Board found that Kadaba is directed to preparing electronic shipping records. The Board noted that Kadaba expressly describes how its disclosed shipping software permits parcel delivery companies to provide their customers with an improved and more efficient service. The Board concluded this description would motivate one of ordinary skill in the art to use the Kadaba software along with the automated system disclosed in O'Neill. The Board also rejected Gleizer's argument that there was a specific order required in the steps recited in his rejected claims which would not have been obvious from the cited prior art. The Board found Gleizer's remaining arguments unpersuasive and affirmed the examiner's rejection of all the claims pending in Gleizer's application.

Gleizer filed a request for rehearing at the Board which was denied. Gleizer timely appealed the Board's decision. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

Section 103 of title 35 of the U.S.Code "forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.' " *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 405, 127 S.Ct. 1727, 167 L.Ed.2d 705 (2007) (quoting 35 U.S.C. § 103). "Determination of obviousness under 35 U.S.C. § 103 is a legal conclusion based on underlying facts." *In re Kumar*, 418 F.3d 1361, 1365 (Fed.Cir.2005). This court reviews "the Board's ultimate determination of obviousness de novo," while the Board's underlying findings of fact are reviewed under a substantial evidence standard. *In re Kotzab*, 217 F.3d 1365, 1369 (Fed.Cir.2000).

On appeal, Gleizer presents the same arguments that he presented to the Board. Primarily, Gleizer argues that the examiner failed to make a showing of an apparent reason to combine the elements known separately in the prior

art in a fashion claimed by his patent application. Gleizer contends that the Board failed to articulate such a reason, instead citing "mere conclusory statements" such as "more efficient service," "design need," and "market pressure" as motivations to combine the known elements.

In response, the Director of the Patent and Trademark Office ("PTO") argues that Gleizer's claims are nothing more than a predictable variation of elements disclosed in O'Neill and Kadaba. Such a predictable combination is unpatentable under the Supreme Court's decision in *KSR*. Moreover, the Director argues, the Kadaba shipping software system purports to permit improved and efficient service for a shipping customer, thereby providing a reason for an automated transactions system such as the one in O'Neill to make use of it.

[1]   We agree with the Director. Under *KSR*, "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* at 416, 127 S.Ct. 1727. In *KSR*, the Court offered ***419** guidance on when a combination might be obvious under § 103:

> When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try might show that it was obvious under § 103.

550 U.S. at 421, 127 S.Ct. 1727. Under *KSR*, we conclude that Gleizer's proposed combination of elements from O'Neill and Kadaba would have been obvious to a person of ordinary skill in the art.

[2]   Gleizer also argues that for each of the claims at issue, the cited prior art does not teach every limitation of the claim. Regarding claim 89, Gleizer argues that neither O'Neill nor Kadaba teaches the use of electronic funds payment instrument information and shipping information in the same manner as Gleizer has claimed in limitations (b), (c), and (d). However, we find that the Board specifically addressed each

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of those limitations in its order. The Board explained that O'Neill discloses how electronic funds transfer information is accessed and used to enable a payee to receive a payment, similar to the funds transfer step claimed in limitation (b) of claim 89. *See Ex parte Gleizer,* No.2007-2033, slip op. at 13. The Board noted that in one embodiment, O'Neill discloses tracking of shipments prior to transfer of funds for the shipment, similar to the tracking step claimed in limitation (d). *Id.* at 14. The Board agreed with the examiner that claim limitation (c), related to printing a label with shipping information, was taught by Kadaba. *Id.* at 11. We agree with the Board that the prior art teaches every single limitation of claim 89.

Gleizer argues that even if every limitation of claim 89 is found in the prior art, the claim also requires a specific sequence that is not taught by the prior art. He argues that his claimed method requires that electronic funds be received from the buyer before the purchased goods are shipped. To support his proposition, Gleizer points to the fact that the specification describes the steps in a sequence. In response, the Director argues that the PTO is required to give claims their broadest reasonable interpretation and that it would be improper for the PTO to read Gleizer's suggested sequential limitation into his application's claims.

[3] We have held that unless the steps of a method actually recite or implicitly necessitate a specific order, the steps are not ordinarily construed to require one. *Interactive Gift Express, Inc. v. Compuserve Inc.,* 256 F.3d 1323, 1342-43 (Fed.Cir.2001). We agree with the Board that Gleizer has failed to show how a sequence of steps described in one embodiment mandates a narrow construction of the claim. *See In re Bigio,* 381 F.3d 1320, 1325-26 (Fed.Cir.2004) ("Absent claim language carrying a narrowing meaning, the PTO should only limit the claim based on the specification or prosecution history when those sources expressly disclaim the broader definition."). We therefore agree that the Board properly affirmed the examiner's rejection of claim 89.

Gleizer argues that claims 98 and 101 claim "interfaces" that are functionally different from those taught in O'Neill. According to Gleizer, O'Neill is non-analogous art directed to an entirely different problem from that solved by his invention. In response, the Director contends that O'Neill teaches the use of a computer communication network to carry out its *420 trading system, and therefore that O'Neill inherently teaches interfaces for inter-process communications like those claimed in Gleizer's application.

The examiner found that both O'Neill and Gleizer's application relate to electronic funds transfer and transaction of goods and that O'Neill was analogous art to Gleizer's claimed invention. Thus, the examiner concluded that the use of interfaces taught in O'Neill rendered claims 98 and 101 obvious. The Board affirmed the examiner's decision. *Ex parte Gleizer,* No.2007-2033, slip op. at 23.

We agree with the Board that a person of ordinary skill in the art would have considered O'Neill to be related to the same subject matter as the claims at issue. *KSR,* 550 U.S. at 418, 127 S.Ct. 1727 ("[T]he analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ."). Given that the system disclosed in O'Neill teaches transfer of data between its various components, the use of the claimed interfaces would in fact have been obvious to a person of ordinary skill in the art.

Regarding claims 90 and 102, Gleizer argues that there was no evidence to support the Board's finding that the ACH disclosed in O'Neill teaches funds being disbursed. Gleizer argues that the prior art only teaches transfer of electronic funds between trading clients, and does not teach a broker who could host a seller-buyer transaction. In response, the Director argues that O'Neill teaches an accounting server that facilitates electronic funds transfer between a seller, a buyer, and optionally a bank using an ACH. The Board found that processing disbursements through an ACH is a well known mechanism that clearing houses employ. *Ex parte Gleizer,* No.2007-2033, slip op. at 24. In light of this teaching, it was proper for the Board to find claims 90 and 102 to have been obvious.

Gleizer next argues that claims 92 and 104 would not have been obvious because the use of verified payment and shipping information was not taught in the prior art. Gleizer concedes that Kadaba teaches verification of zip code information, but argues that that is not the same as verification of shipping or payment information corresponding to a specific customer. The Director responds that a zip code is part of any shipping information, and the rejected claims do not in any way limit the scope of the claimed verification. Moreover, the Director points out, O'Neill also addresses verification of invoices. We agree with the Director that the prior art contains sufficient teaching to have rendered the verification of payment and shipping information obvious to

a person of skill in the art. For the same reason, we affirm the Board's conclusion that claims 97, 100, and 108 would also have been obvious.

With regard to claims 93 and 105, Gleizer argues that the use of an escrow account with the claimed system would have been nonobvious. Gleizer argues that the Board engaged in improper hindsight in reaching its conclusion of obviousness because that limitation is clearly not found in the cited prior art. In response, the Director argues that in rejecting these claims, the examiner took official notice that escrowing was well known in the art. The Director notes that Gleizer failed to object to the examiner's notice. Therefore, the Director urges us to affirm the Board's decision.

We have held that "[a]n obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case" and that the "common sense of those skilled in the art *421 demonstrates why some combinations would have been obvious where others would not." *Leapfrog Enters. v. Fisher-Price, Inc.,* 485 F.3d 1157, 1161 (Fed.Cir.2007). Adding an escrow account to the cited prior art would have been common sense and reasonably obvious to one of ordinary skill in designing a system for transaction of goods using electronic funds.

We also reject Gleizer's argument that the Board improperly applied *KSR* in its decision given that Gleizer had briefed his case prior to the Supreme Court's decision in *KSR.* Gleizer argues that in the absence of the Supreme Court's decision, the claims that the examiner had previously rejected would "pass into allowance." The Director argues that Gleizer had an opportunity to present any new arguments to the Board in response to *KSR,* but failed to avail himself of that opportunity. We agree. Gleizer failed to make any substantive arguments based on *KSR* in his request to the Board for rehearing. Moreover, the Board was bound to give the holding in *KSR* "full retroactive effect in all cases still open on direct review and as to all events, regardless of whether such events predate or postdate [the] announcement of the rule." *Harper v. Va. Dep't of Taxation,* 509 U.S. 86, 97, 113 S.Ct. 2510, 125 L.Ed.2d 74 (1993).

We have considered Gleizer's remaining arguments and find them unpersuasive. For the foregoing reasons, the Board correctly affirmed the examiner's rejection of claims 89-118 of Gleizer's application. Its factual findings were supported by substantial evidence and its conclusions of law were not incorrect. Accordingly, we *affirm.*

Parallel Citations

2009 WL 4798425 (C.A.Fed.)

Footnotes

* Honorable Virginia M. Kendall, District Judge, United States District Court for the Northern District of Illinois, sitting by designation.

End of Document

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